



**13th Annual Conference of the  
EuroMed Academy of Business**

**Business Theory and Practice  
Across Industries and Markets**

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# **13th Annual Conference of the EuroMed Academy of Business**

CONFERENCE READINGS

BOOK PROCEEDINGS

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## **Business Theory and Practice Across Industries and Markets**

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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 170 people from over 25 different countries. Academics, practitioners, researchers and Doctoral students throughout the world submitted original papers for conference presentation and for publication in this Book of Proceeding. 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.

Due to challenges associated with the COVID-19, the EuroMed 2020 conference had to go online this year. The EuroMed Academy of Business would like to wish you the very best during these challenging times. We want you to know how much we value and appreciate your contribution to the EuroMed community and we wish you and your families all the best. Our thoughts go to those who suffered from the disease, to their families and friends, and to the doctors and medical staff who are fighting day after day at the forefront of the pandemic.

We wish to all that this 'different' and unique conference will be both fruitful and stimulating, as it used to be during the last 12 years.

## ACKNOWLEDGEMENT

We have all worked hard to ensure that this new online experience will be a great one for all participants. Consequently, most of our annual regular activities were normally scheduled online, including the inauguration event and key note speeches, parallel presentation and discussion sessions, journal special issue paper development workshops, networking and collaboration workshop, research project and publication workshop and more.

Many people and organizations are responsible for the successful outcome of the 13th Annual Conference of the EuroMed Academy of Business.

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.

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# **BOOK OF CONFERENCE PROCEEDINGS**

## DRIVERS OF CUSTOMER SATISFACTION IN AIRLINE INDUSTRY IN (THE) SULTANATE OF OMAN: A CONCEPTUAL STUDY

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### ABSTRACT

Customer satisfaction is considered as a significant source of survival for any organization in today's intense competition. Specifically, passengers' satisfaction in the context of the airline industry is a significant driver to retain existing passengers, acquire new customers, and achieve airline firm success. This paper aims to develop a conceptual framework that explores the factors affecting passengers' satisfaction of Oman air services. Moreover, this paper is amongst the initial attempts to increase the understanding of the links between critical factors such as (service quality and airline image) and its relationship with passengers' satisfaction in the Omani context. In addition, the proposed framework also recognizes hedonic and utilitarian values as a mediating variable in the proposed relationship. Besides, the proposed model provides suggestions and recommendations for decision and policymakers to concentrate on specific variables which strengthen the relationship with the airline's passengers.

*Keywords: Customer satisfaction drivers, Service quality, Image, Hedonic & Utilitarian Values. Airline industry, The Sultanate of Oman.*

### INTRODUCTION

Oman air presents the national airline in Sultanate of Oman (Sukati and AL Mashani, 2019). Also, Oman airline collaborates with many Asian, African, and European airlines to offer higher levels of quality with a unique and diverse collection of choices for the passengers (Hussain, 2016; Jalagat, 2017; Sukati & AL Mashani, 2019). Extant research reveals that many empirical studies have been done in the Asian context, however there is an insufficient number of studies published on the standpoint of Omani airline passengers. In this respect, this paper aims to develop a conceptual framework which explores the factors that affect passenger's satisfaction with Oman air. Thus, this paper is amongst the initial attempts to increase the understanding of the relationship between critical factors such as (service quality and airline image) and passengers' satisfaction. In addition, the proposed framework also recognizes the hedonic and utilitarian values as a mediating variable in the proposed relationship. Moreover, this study may provide interesting and important implications for practitioners and

managers within the airport setting in understanding the main factors that reflect on customer satisfaction.

Globally, the increased growth in the air transportation sector has motivated airlines to develop their services and activities (Dahlgaard-Park, 2015; Jiang and Zhang, 2016; Saleem, Zahra and Yaseen, 2017). In this regard, airlines struggle to survive in stiff competition and grow with their business (Pabedinskaitė and Akstinaitė, 2014). Previously, airlines were solely relevant to governmental regulation that consequently outline how the national airline operate (Baker, 2013). Recently, the entrance of private airlines has changed the competition rules through setting prices recognizing the requirements of passengers safety and security (Gan, 2008; Baker, 2013; Hapsari, Clemes, & Dean, 2016). Therefore, a dramatic revolution emerged in the airline's sector leading to intense competition (Jiang & Zhang, 2016; Saleem et al., 2017).

Arif, Gupta and Williams (2013) claim that understanding customer needs and wants is the crucial element in maintaining customers. In this context, the service industry is extremely critical nowadays, where customers need and wants changes continuously (Saleem, Zahra, & Yaseen, 2017). The extant empirical research has proved that attracting new customers is five-time as costly as keeping existing customers (Batouei, Iranmanesh, Nikbin, & Hyun, 2019). Suki (2014), Hussain (2016) and Seo, Park, and Choi (2020) argued that such assertions create new challenges for airlines companies to deliver more customer value through improving service levels. Accordingly, the unique value rooted in the quality of services is the underpin weapon to survive in an increasingly competitive environment (Hapsari, Clemes and Dean, 2016; Jiang and Zhang, 2016) and improve passengers' satisfaction (Pabedinskaitė and Akstinaitė, 2014).

## **CONSTRUCT DEVELOPMENT AND LITERATURE REVIEW**

### ***Service quality***

Parasuraman, Zeithaml and Berry (1985) argued that the concept of quality is elusive and not easily interpreted, given that consumers have different perspectives of quality definition. For instance, quality could be depicted by diverse segments of customers as luxury, weight, shininess, and goodness. However, quality interpreted as "zero defects-doing it right the first time". Also, quality defined as the consistency of tangible or intangible product with customer needs (Gronroos, 1984; Parasuraman et al., 1985; Lewis & Mitchell, 1990; Sureshchandar, Rajendran, & Anantharaman, 2002). Moreover, service quality is measured and appraised relatively to the overall delivered level of service that matches the actual customer expectations (Hall, 1978; Lewis and Mitchell, 1990). Service quality is one of the most concepts that has been debated in marketing theories field, enlightened the concerning efficacy in its ability to achieve economic success (Sureshchandar, Rajendran and Anantharaman, 2002).

Due to the intense and global competitions, firms ought to capture the urgent need for delivering high-quality services (Parasuraman et al., 1985; Sureshchandar et al., 2002; Jayawardhena, Souchon, Farrell, & Glanville, 2007). Suki (2014) confirms that the standers of service quality measured by passengers via a series of interactions between airline's employees and its customers. Parallel to this, the SERVQUAL scale created to facilitate customer ability in the process of evaluating the delivery of services provided (Parasuraman, Berry and Zeithaml, 1993). Parasuraman et al. (1993), and Suki (2014) view five dimensions subject to SERVQUAL scale, namely: reliability, responsiveness, assurance, empathy, and tangibles. However, in airline settings, tangibles are portrayed by the physical appearance of surrounding facilities, equipment, machines, interior design, and communications materials which formulate a general atmosphere of the airline firm.

Consequences to the fact that airline passengers now have a broad range of choices among several airlines, the quality of services performed unarguably distinguish their competitive advantages (Hall, 1978; Lubbe, Douglas, & Zambellis, 2011). Lubbe, Douglas and Zambellis (2011) suggest that the imperative need to leverage the level of services is devoted to its positive impacts on airline passenger behavior and attitude.

### *Airline image*

The mental image that people immediately describes regarding a particular institution constitutes the overall organization image as described by (Gray and Balmer, 1998). Gotsi and Wilson (2001) illustrate that organization image consist of the integration of public ideas, beliefs, as well as individuals' impressions. Nevertheless, airline image evolved as pivotal criteria to establish a corporate sustainable competitive advantage (Gotsi & Wilson, 2001; Han, Lee, Chua, Lee, & Kim, 2019). In term of the service sector, corporate image play as a predictive factor in the perspective of customers in which they compress their expectations regarding organization services quality (Hwang & Lyu, 2020). To initiate a favorable institutional image, airline companies strive to raise employee's morality and enthusiasm towards dealing with organization passengers. Employee's productivity, behavior, and attitude are also considered a vital determinant of an airline success in maintaining a positive image amongst the public (Kim, & Severt, 2019).

However, the effect of favorable airline image embeds in the sequent impact of word-of-mouth influence and passengers desire to pay outstanding prices (Kaya, 2020; Oh and Park, 2020; Seo, Park and Choi, 2020). More importantly, airline image has a significant influence in preserving customer satisfaction (Lee & Cheng, 2018; Hwang & Lyu, 2020) consequently enhance customer retaining rate within the same company (Ju *et al.*, 2019; Pizam and Tasci, 2019). The intention to purchase airline services are associated with the airline reputation in providing its services during the flight (Gray and

Balmer, 1998; Kaya, 2020). Further, airlines firms are investing in their employee's skills and abilities in order to match it with a potential criterion of future airline image (Shin et al., 2019; Kaya, 2020).

On the other hand, scholars assured that the favorable image of airlines delivered in the situation of firm ability to be innovative and achieve constant development in the area of providing its services (Pabedinskaitė and Akstinaitė, 2014; Suki, 2014). According to Hussain et al. (2008) and Liou et al. (2011), to remain a high standard of safety within airline services performance, which could be balanced between airline reputation and consequently customer decision making towards preferred airline and willingness to pay tickets prices. Given the remarkable influence of the airline image (Kaya, 2020; Seo, Park and Choi, 2020), the current study emphasizes the impact of ideas and beliefs in modelling the effects of airline image.

### *Hedonic and utilitarian values*

Hedonic and utilitarian values embedded on the perceived value deemed among the essential concepts in realizing customer satisfaction (Shin, Kim and Severt, 2019). Perceived value is explained as customer appraisal of the extent in which utility and hedonic of product approached to their perception (Parasuraman, Berry, & Zeithaml, 1991; Chen, 2008) based on a comparison of what they received and given from the performed service (Parasuraman et al., 1991; Caruana, Money, & Berthon, 2001). Gruen, Osmonbekov and Czaplewski (2017) utility theory states that a bundle of product characteristics deliver a level of quality that creates a specific value to the customer than the disutility represented by the paid money. Furthermore, people differ in their evaluation of the hedonic value due to their recognition differences. Where value is commonly known as the range between perceived quality and price (Caruana, Money and Berthon, 2001; Chahal and Kumari, 2012). Interestingly, the utility value utilized by managers and practitioners to examine and predict customer intention to repurchase (Chen, 2008). Law (2019) demonstrates that hedonic value impacts positively on customer behavioral intention to retain and remain loyal to the company.

According to marketing literature, hedonic values represent the personal emotional criteria of customers' consumption behavior which aroused by fun and excitement. While utilitarian values are more task-oriented and functional-based, serving the economic behavior of the customer. However, because of current better-educated customers and the extreme change emerged in their demands; a reputation requirement is to not solely cover the basic needs of their customer (Levesque & McDougall, 2009). Whereas to remain competitive, airline ought to provide high standards of attention to their customers, combined with special experience (Kassim & Asiah Abdullah, 2010).

Kassim and Abdullah (2010) declared that customers are willing to feel that they are receiving valuable service, confirming the strong association between value and customer satisfaction. Several researchers

assured that establishing high-quality services that match customers expectation derived from the impact of customer consumption behavior and obtained from hedonic and utilitarian values during the flight ( Levesque & McDougall, 2009; Hussain, Al Nasser, & Hussain, 2015). In the same vein, Hussain et al. (2015) demonstrate that perceived value lies in the standards of quality offered by the airline firm. Consistent with Levesque and McDougall (2009) whose ascertain that if a customer spends less energy, time and money compared to a higher level of service performed by service providers, then the customer will attain at better hedonic value. Thus, applying these two values on the present study will help in expanding a comprehensive understanding of customer satisfaction.

### *Customer satisfaction*

Customer satisfaction is one of the fundamental elements of marketing (Barsky & Labagh, 1992; Kim & Lee, 2011; Baker, 2013). Since customer satisfaction emerged as a critical field in delivering customer needs, wants, and desire (Kim & Lee, 2011; Baker, 2013). Moreover, Customer satisfaction illustrated as reactional behavior to the fulfilment response of customers (Kim & Lee, 2011; Baker, 2013) that generate an overall judgement of the product or service characteristics ( Ekinci, Dawes, & Massey, 2008; Baker, 2013). Barsky and Labagh (1992) suggest that customer satisfaction is the pleasurable emotions delivered from the outcomes of the product.

Generic customer satisfaction is drawn from a multidimensional construct within the business (Lankton & Mcknight, 2012; Arif et al., 2013; Bruno, 2019). From another perspective, there is five factors outline customer satisfaction of the provided services; the core service performed (Gan, 2008; Baker, 2013), the involvement of human elements in the process of delivering the service (Ekinci, Dawes and Massey, 2008), the organization of service delivery, services tangibles, and lastly social responsibility engagement within the business (Huseman *et al.*, 2013). Nevertheless, prices of the airline services portray a general judgement of the quality of services (Kim & Lee, 2011) through comparison of the money paid and the quality of services offered, thereby influencing customer evaluation and satisfaction related to airline services (Ekinci et al., 2008; Sabatelli, 2018).

Despite the importance of price, service quality delivered to airline targeted customers considered one of the major influential factors in establishing passengers satisfaction (Yi, 1990; Oliver, 2013; Dahlgaard-Park, 2015; Bruno, 2019). On the contradictory, Gan (2008) clarify that airline service quality is not sufficient to guarantee customer satisfaction, where managers and first-line service providers should understand the determinants reflection on customers dissatisfaction (Ekinci et al., 2008) such as personal attributes and situation (Ekinci, Dawes and Massey, 2008; Kim and Lee, 2011). Several studies found that customer satisfaction considerably influenced by multiple factors (Mishra & Prasad, 2014;

Naidu, 2016). Therefore, this study proposed that service quality, airline image, as well as hedonic and utilitarian values, create passengers' satisfaction.

### *Service quality and customer satisfaction*

Sureshchandar et al. (2002) ascertained that sustained competitive advantage could be harvest from providing spectacular services that, in turn, will draw satisfied customers. In this case, there is no doubt of the conspicuous reflection of service quality on customer satisfaction (Hall, 1978) which is derived from the hedonic and utilitarian values that customers received from services (Pizam & Tasci, 2019; Shin et al., 2019; Kaya, 2020). Furthermore, to boost customer experience towards airline services, its significance to associate a positive interaction between the service provider and airline passenger (Hussain, 2016; Jalagat, 2017). Many researchers prove that pre-purchase expectations of the value from particular services encounter impacts on the process of customer estimation and his/her satisfaction of the service performance. Based on that, the following proposition can describe the relationship between service quality and passengers' satisfaction:

**P1. Service Quality has a positive and significant influence on passengers' satisfaction.**

### *The mediating role of airline image and hedonic and utilitarian values*

Service quality is an essential factor for formulating airline image to survive and achieve economic success in an increasingly competitive environment (Kozinets, Valck, Wojnicki, & Wilner, 2010; Suki, 2014; Han et al., 2019). Kozinets et al. (2010) and Ju et al. (2019) Proves that there is a strong relationship between service quality provided and firm financial revenues, as the impact of offering hedonic and utilitarian values of services is similar to the effect of advertisement. Thereby, quality influence the gained profit, which is linked to actual customer perception of airline image alignment to the standards of services performed (Ashraf et al., 2018). However, identifying customer perception of airline image aids service providers to lunch plans aims primarily to leverage the level of service quality and values (Suki, 2014; Shin et al., 2019; Seo et al., 2020) Thus, to grasp customer attention it is necessary to maintain positive corporate image presented by every influential member in the airline (Oh and Park, 2020).

According to Gotsi and Wilson (2001), a favorable airline image depicts a primary benchmarking tool to capture the uniqueness of value delivered to airline customers. Moreover, the primer cause behind customer choice of particular airline is the utility and entertainment values received from the airline services (Pizam & Tasci, 2019; Shin et al., 2019; Kaya, 2020) that is embedded in several aspects such as airline schedule, prices, furniture, food, and lounges (Cronin et al., 2000; Caruana et al., 2001; Gruen et al., 2017). However, customer tolerance of the received level of service depends on the minimum and

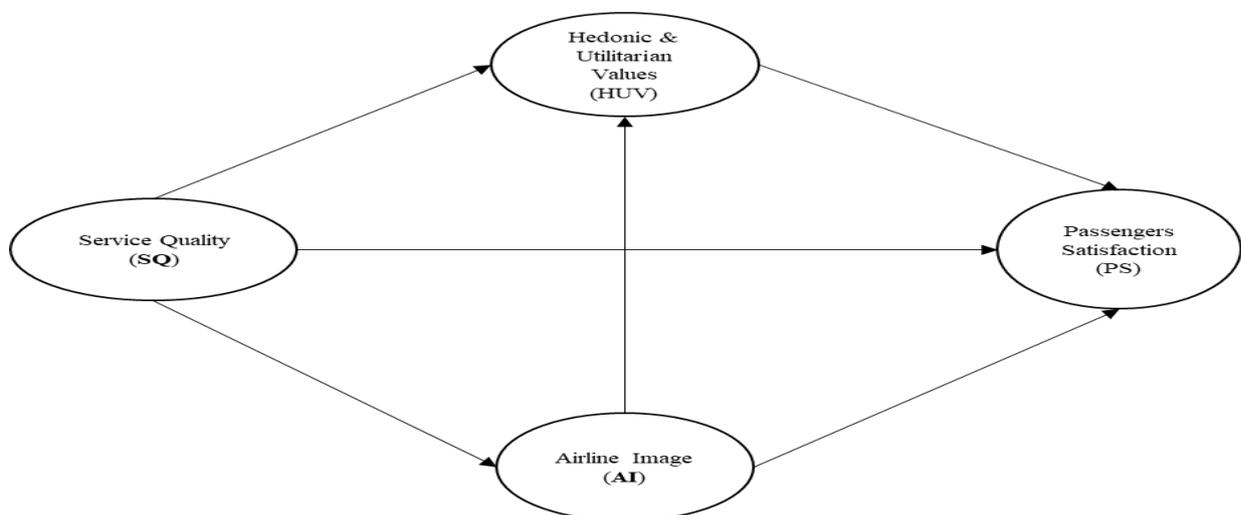
maximum level of hedonic and utility expected (Parasuraman et al., 1993; Suki, 2014; Pizam & Tasci, 2019). From customer's perspective, tolerance zone is between these two levels as the willingness to receive the airline services when an airline provides an outstanding service consistent with its image (Suki, 2014; Shin et al., 2019). Consequently, the researchers suggest the following propositions, which can explain the mediating effect of airline image, and hedonic and utilitarian values in the relationship between service quality and passengers' satisfaction:

*P2. Service Quality has a positive and significant influence on passengers' satisfaction when airline image plays a mediating role.*

*P3. Service Quality has a positive and significant influence on passengers' satisfaction when hedonic and utilitarian values play a mediating role.*

## CONCEPTUAL FRAMEWORK

After critically reviewing the literature, the researchers intend to discuss the most frequent and best matching the factors that formulate passengers' satisfaction. In this regard, the factors that are affecting passengers' satisfaction can be summarized as Service quality, airline image, hedonic and utilitarian values. As shown in **Figure 1**, both variables airline image, hedonic and utilitarian values are appeared on the conceptual framework as mediating variables in the proposed relationship between service quality and passengers' satisfaction.



**Figure 1: Conceptual framework**

\*\* S.Q.: Service Quality; A.I.: Airline Image; HUV: Hedonic & Utilitarian Values; P.S.: Passengers' Satisfaction

\*\*This conceptual framework was developed based on critically review the related literature

## **CONCLUSIONS AND RECOMMENDATIONS**

The airline industry is widely diverse in conjunction with the diversification of business structure and the characteristics of multiple operations. This diversification derived from the intense competition to achieve its competitive advantages that adopt customers continuing change in their needs and desire. Nowadays, better-educated passengers formulate a challenge for service providers to align with passengers expected services. Moreover, service quality airlines image and perceived hedonic and utilitarian values sought as prominence influential factors that yield airline passengers satisfaction. Meanwhile, passengers' satisfaction as a consequence of service quality, airline image, and utility values have a significant role in generating positive word-of-mouth, leading to direct influence on mitigating advertisement expenses and leveraging airline market share and profit. Furthermore, to induce customer experience within a particular airline, practitioners must place more attention to extract an excellent level of services and engage innovation to differentiate their services and thereby boost the perceived value as well as positively induce brand image among customers.

## **PRACTICAL IMPLICATIONS**

This conceptual paper will enrich the existing knowledge of passenger's satisfaction in the context of the national airline by providing insightful knowledge for marketing researchers, managers and practitioners with an understanding of the primary determinant of passengers' satisfaction in providing and improving company strategies which seek to guarantee retention and meet passenger's needs.

## **LIMITATIONS AND SUGGESTION FOR FUTURE RESEARCH**

The current study only focused on exploring factors leading to passengers' satisfaction in the context of Omani airline without bearing in mind the fact that the airline industry involves various airlines due to the deregulation. Moreover, the absence of data generalization lacks evidence of quantitative data.

This study restricted by several limitations, which in turn provides avenues for future reviews and recommendations. Despite these restrictions, the current study paves the way for further empirical investigation. Therefore, new research should be conducted on service quality impacts on customer satisfaction and retention on more comprehensive categories of airlines, including low-cost airlines and legacy airlines. Additionally, as our study proposed airlines image and hedonic and utilitarian values as mediator variables, it is suggested to also examine the word-of-mouth as a mediator variable between independent variables and customer satisfaction. Furthermore, our paper could be extended by conducting the study empirically in Gulf countries due to the similarities of passenger's cultural

characteristics, which will provide us with the perspective of various customer populations. Finally, the study framework could be replicated in other industries such as education, healthcare, and hospitality to test the generalizability of the conceptual model.

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## STORYTELLING ONLINE: ADDING VALUE TO THE CHILEAN WINE INDUSTRY'S GLOBAL EXPORTS

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### ABSTRACT

This study explored the website discourse of five Chilean wineries and revealed that storytelling strategies are important marketing tools. Warman and Lewis' (2019) model of the conditions necessary to fulfil the wine/place experience through the value chain was used as the conceptual framework with a particular focus on evidence-based storytelling that wine science can contribute to the wine/place experience for consumers of premium wine. A content analysis of winery estate website texts was carried out to investigate the storytelling phase of the wine value chain framework using a case study approach. Findings indicate that stories generate interest, provide knowledge, increase understanding of place distinctiveness especially for wine buyers who are less knowledgeable about the meanings of place of origin, but are requesting this information. The results provide evidence of a solid foundation for employing evidence-based storytelling as a tool that marketing executives can use to engage consumers both physically and emotionally. The results are particularly useful in formulating decisions about different communication approaches and how these approaches are often combined for better effect. Since purchase decisions are made according to consumers' frames of reference, managers may also need to consider that wine buying decisions are more of a learning process for international consumers who choose a Chilean wine.

*Keywords: Wine value chain, Evidence-based storytelling, Websites, Case studies, Chile, Wine, Content analysis, Authenticity*

### INTRODUCTION

Export performance of Chilean wineries is driven by high quality of wines, an established network of international distributors and marketing skills (Bianchi & Wickramasekera, 2013). Although these are important factors, as more luxury products are available on world markets, sales success is predicated on both mental and physical availability (Romaniuk & Sharp, 2015). Mental availability relates to a product's renown so consumers remember the brand and the reasons and occasions they bought that brand while physical availability means the brand is easily located so consumers can easily buy it (Sjostrom, Corsi, & Lockshin, 2016). For the former, firms must work to increase brand awareness through communication that creates the desire to own the product (Romaniuk & Sharp, 2015).

One way to ensure that consumers are aware of a brand, particularly the attributes and characteristics of a wine brand that differentiate it from other wine brands, is by communicating adequately online (Capitello, Agnoli, Begalli, & Codurri, 2014; Freitas Santos & Cadima Ribeiro, 2012) and on wine estate websites (Begalli, Codurri, & Gaeta, 2009; Ingrassia, Altamore, Columba, Bacarella, & Chironi, 2018; Morrish, Pitt, Vella, & Botha, 2017; Pollach, 2005). For discourse to contribute value to the wine value chain, Warman and Lewis (2019, p. 503) argue the need for evidence-based storytelling based on wine science that adds value to premium wine consumers' "demand for authenticity, and subjectivity, in their wine experience, by providing deeper understanding and enriching the telling of place stories." Because place has social, cultural and discursive qualities, place distinctiveness must be effectively communicated by wineries to socially construct the character of a wine region and link wine production to sensory qualities that stimulate consumers' emotions (Ingrassia et al., 2018).

Building on Warman and Lewis' (2019) wine value chain model outlined in the next section, this paper explores organisational discourse in promotional texts of five cases of Chilean wineries to reveal the linguistic choices and discursive positioning of each winery to create images of authenticity and cultural value (Poncini, 2007). The study explores how the Web, as a dynamic tool, applies storytelling and the discourse of authenticity to create a two-way relationship between the wine producer and consumers (Maguire, 2013). Understanding the distinctive features of terroir and provenance, consumers become more knowledgeable of how the characteristics of unique places express the distinctive sensory qualities attributed to the wine and add to the sensory experience of drinking the wine. Thus, storytelling and its value-added competitive advantage are significant and interesting topics for global business research.

The study has direct implications for brand managers and managerial practice. It identifies major themes communicated by wine estate websites that characterise brand authenticity, how this discourse builds organisational reputation and creates a unique brand identity for the global market (Riviezzo, Garofano, Granata, & Kakavand, 2017). Discourse studies of the wine value chain lead to a better understanding of how premium wineries create messages that influence consumer behaviour and loyalty (Goulding, 2000) and provide valuable knowledge for decisional purposes. In today's pervasive communication environment, online platforms and social communication via Web interaction allow managers to link a product's identity to consumer perception and interpretation of brand identity to develop and maintain a strong brand image (de Chernatony, 2010; Kapferer, 2008).

## THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

This section outlines the conceptual model of the wine value chain and brand authenticity. Aligned with Sjostram et al. (2016), the study applies the term “premium” to integrate “luxury” and “premium” as both terms were found to correlate to the highest price tier.

### *Model of wine value chain*

Warman and Lewis (2019) articulated a conceptual framework to develop two-way co-construction of knowledge between the wine producer and the consumer in the value chain and described a set of four conditions necessary for a positive wine/place experience. Terroir and the wine making process are the first condition in the wine value chain. Second, the consumer needs to have confidence that the wine indeed comes from a specific and authentic place. This may be done, for example, through labelling so that the bottle of wine provides context to help understand the provenance of the wine. The third condition is knowledge of distinctive sensory qualities such as taste, aroma, feel and look. The wine needs to express a particular sensory experience. The final condition is knowledge of how place characteristics are expressed in sensory qualities. Consumers need to experience and distinguish this unique sensory quality of the wine related to the place of winemaking. To convey these conditions to a distant wine consumer, all actors along the value chain must understand how to communicate both sensory and meaning values that are crucial to the wine/place experience in an authentic and reliable manner.

Furthermore, the framework is proposed as a means of using wine science and research to contribute value to the premium wine value chain and to consumers. Consumers want to know the place quality of their wine, but usually lack winemaking experience and must rely on familiar terms such as geography, place, climate or varietal, rather than more detailed and complex markers (McCutcheon, Bruwer, & Li, 2009). More and more, consumers demand to know the “story” and meaning of a wine’s characteristics (Beverland, 2006; Mora & Livat, 2013). For example, organic labelling has been found to have a strong effect on committed organic consumers and is perceived to taste better, and be of higher quality, which also influences the wine purchasing habits of less committed organic consumers (Gassler, Fronzeck, & Spiller, 2019). In terms of sustainability, consumers want to know about the wine producer’s waste recovery, efficient water use, elimination of pesticides and other organic innovations in the winemaking process (Fiore, Silvestri, Contò, & Pellegrini, 2017). In other words, consumers demand more sophisticated knowledge that wine science can contribute to their understanding.

To respond to these consumer demands, expert knowledge actors including winemakers, wine producers and retailers influence the broader consumer appreciation of premium markets by contributing to “richer storytelling and deepening the experience of authenticity” (Warman & Lewis,

2019, p. 502). As a result, wineries emphasise the significance of the link between region identity and wine quality through storytelling and developing communication strategies (Ingrassia et al., 2018; Mora & Livat, 2013) that communicate the story up the value chain to consumers. Therefore, the following hypothesis is proposed:

H1: Chilean wineries in this study use evidence-based storytelling on their websites to communicate wine qualities and sensory qualities.

### *Brand authenticity*

Consumers are increasingly looking for authentic brands so that they can experience or engage with history through the brand (Hudson & Balmer, 2013; Wilson, 2018) or experience an authentic expression of a particular place (Beverland, 2006). Authentic products and experiences allow consumers to escape from a commercially exploiting consumer world (Grayson & Martinec, 2004). In addition, today's consumers want to know what is behind the bottle of wine in terms of sustainability and ethical standards. Retailers are requiring sustainability and ethical standards because consumers identify more and more with measures to ensure a green planet (Alessandri Abogados, 10 January 2018).

To explore the discourse of evidence-based storytelling in the wine value chain used by Chilean wineries, six attributes of authenticity are used to classify communication strategies (Beverland, 2006). *Heritage and Pedigree* narrates the story behind the firm and its production. *Stylistic Consistency* projects commitment to taste consistency for low-risk consumers, but also style consistency that may result in slight differences for variety seeking consumers. *Quality Commitments* refers to product integrity and commitment to continually make great wines. *Relationship to Place* implies that the region of origin is a core brand attribute so that when consuming a wine from a specific place, consumers experience the history or soul of the brand. *Method of Production* relates to the importance of knowing what went into the final product as well as knowing that an actual identifiable person used certain production methods to create the brand. *Downplaying Commercial Considerations* refers to understating marketing prowess and business acumen when promoting the winery and its wine.

Brand heritage is also examined by applying Hudson and Balmer's (2013) four dimensions of brand heritage. *Structural heritage* refers to past events that influence current brand claims in contrast to *implied heritage* that refers to a past that is implied by the current brand status. *Reconstructed heritage* refers to consumers recall of brands from earlier in their lives while *mythical heritage* means referring to historical elements that are fictitious but that allow consumers to escape to imaginary events. These factors relate to aspects of the product and brand that managers may exploit in the social co-construction of storytelling.

However, the reconstructed and mythical heritage dimensions pose a problem for the concept of authentic heritage. If true evidence of heritage and sincerity is lacking, then consumers should not accept reproductions or fiction in their search for authentic experiences. Premium wine drinkers understand that place-based stories are crucial aspects of authenticity of knowledge conveyed along the wine value chain. Therefore, wine scientists must grapple with the problem of how to insert technical knowledge into the world of winemaking which is founded on cultural heritage, tradition and myth (Matthews, 2016). To account for this dichotomy, the wine value chain model adopted in this study proposes that structural and mythical heritage may be complementary, and that place-based storytelling may be appropriated as a discursive strategy to reconcile the two. The more specific the information about the terroir of New World wines is, the more authentic and more valuable the wine appears (Moulard, Babin, & Griffin, 2015). Furthermore, consumers value technical elements and information when it is contextualised in stories (Mora & Livat, 2013). Thus, the two views become reconciled as wine consumers and brand managers co-construct wine/place knowledge leading to the development of place-based storytelling (Visconti, 2010). "Myth then becomes not the enemy of science, but rather a story to be deepened" (Warman & Lewis, 2019, p. 504).

Thus, stories are used as a positioning device to reach consumers' and capture their attention (Grayson & Martinec, 2004). If authentic products and services are relevant enough in their brand values and personality, they can connect with consumers on a deep level, even becoming part of the culture itself (Beverland, 2005; Holt, 2004; Morrish et al., 2017). Therefore, the following hypothesis is posited:

H2: Chilean wineries in this study use storytelling on their websites to build emotional feelings.

## RESEARCH DESIGN

A content analysis of texts taken from winery estate websites (Morrish et al., 2017) was carried out to investigate the storytelling phase of the wine value chain framework (Warman & Lewis, 2019) using a case study approach (Yin, 2014). This sampling method allows the researcher to discover patterns or divergencies of the constructs, relationships and strategies that managers choose to focus on to communicate the wine/place experience to consumers. To explore the content of website messages, these case studies are suitable to operationalise the framework because they consist of reliable discourse in relation to a specific context whose key elements can be considered an adequate description of the context. However, this method does not allow generalisability of results to other contexts. It does, however, allow for generating a qualitative information flow related to the specific contexts under investigation and thus can facilitate learning (Flyvberg, 2006).

Wineries for study were chosen from premium wine producing regions of Chile. Three wineries are located in Casablanca (Emiliana Organic Vineyards, n.d.; Kingston Family Vineyards, 2020; Veramonte, n.d.), one in the Leyda Valley (Garcés Silva Family Vineyards, 2019), a subregion of the San Antonio Valley next to and south of Casablanca, and one in Maipo (De Martino, n.d.). Details of market positioning in terms of principal vineyard location, subsequent acquisitions, organic/biodynamic and sustainability certification are provided in Table 1. An indication of a premium wine region is that Chilean wine companies without a presence in firmly established premium wine regions actively seek to include Casablanca and Maipo in their product portfolio as indicated by expansion to those regions (Overton, Murray, & Pino Silva, 2012).

| Winery                  | First planting | Denomination of origin<br>Subsequent vineyards   | Certified sustainable | Organic/<br>biodynamic |
|-------------------------|----------------|--|-----------------------|------------------------|
| Viñedos Emiliana S.A.   | 1986           | Casablanca Valley  | √                     | √√                     |
| Viña Veramonte          | 1889           | Casablanca Valley<br>Other valleys: Alto Maipo,<br>Maipo, Apalta, Colchagua                                    |                       | √                      |
| Viña De Martino         | 1934           | Maipo Valley<br>Other valleys: Limarí, Choapa,<br>Casablanca, Cachapoal, Maule,<br>Itata, Elqui Valley (1950m) | √                     | √                      |
| Viña Garcés Silva Ltda. | 1999           | Leyda Valley   | √                     | √                      |
| Viña Kingston Family    | 1998           | Casablanca Valley  |                       |                        |

Table 1. Summary details of cases

At each winery, a tour of the production facilities was undertaken to observe and ask questions involving the firm's history, guiding philosophy, important events in the life of the brand, marketing practices, positioning and production processes. Each tour lasted one hour on average. Notes from seminars given by the De Martino Market Development Manager, the Emiliana Export Manager Asia, and at the legal firm of Alessandri Abogados in Santiago, the lawyer for Wines of Chile, were consulted to provide further background and the current positioning of the Chilean wine industry. Although about 95% of Chilean wine is exported to 150 markets (Alessandri Abogados, 10 January 2018), the wineries chosen for this study represent differences in terms of volume of wine exported (Table 2), total value of exports (Table 3) and price per case (Table 4).

|                            | Volume  |         |         |         |
|----------------------------|---------|---------|---------|---------|
|                            | 2016    | 2017    | 2018    | 2019    |
| VINEDOS EMILIANA S.A.      | 831 642 | 791 489 | 650 195 | 713 125 |
| VINA VERAMONTE             | 108 898 | 103 782 | 96 039  | 93 483  |
| VINA DE MARTINO            | 108 665 | 86 144  | 88 503  | 73 107  |
| VINA GARCES SILVA LTDA.    | 20 219  | 12 640  | 14 454  | 14 929  |
| VINA KINGSTON FAMILY LTDA. | 1 985   | 3 280   | 1 550   | 1 763   |

Table 2. Annual export volume by winery (Intelvid, 2020)

|                            | Value        |              |              |              |
|----------------------------|--------------|--------------|--------------|--------------|
|                            | 2016         | 2017         | 2018         | 2019         |
| VINEDOS EMILIANA S.A.      | \$26 030 275 | \$27 028 108 | \$23 922 182 | \$26 652 465 |
| VINA VERAMONTE             | \$5 556 726  | \$5 270 320  | \$5 351 178  | \$4 550 964  |
| VINA DE MARTINO            | \$4 450 495  | \$3 748 626  | \$3 999 485  | \$3 248 171  |
| VINA GARCES SILVA LTDA.    | \$1 351 177  | \$1 035 412  | \$1 091 760  | \$1 358 445  |
| VINA KINGSTON FAMILY LTDA. | \$216 354    | \$512 100    | \$222 180    | \$285 145    |

Table 3. Annual export sales dollars by winery (Intelvid, 2020)

|                            | PCC      |          |          |          |
|----------------------------|----------|----------|----------|----------|
|                            | 2016     | 2017     | 2018     | 2019     |
| VINEDOS EMILIANA S.A.      | \$31,30  | \$34,15  | \$36,79  | \$37,37  |
| VINA VERAMONTE             | \$51,03  | \$50,78  | \$55,72  | \$48,68  |
| VINA DE MARTINO            | \$40,96  | \$43,52  | \$45,19  | \$44,43  |
| VINA GARCES SILVA LTDA.    | \$66,83  | \$81,92  | \$75,53  | \$90,99  |
| VINA KINGSTON FAMILY LTDA. | \$108,99 | \$156,13 | \$143,34 | \$161,78 |

Table 4. Average price per case by winery (Intelvid, 2020)

The data were augmented with information from a corpus of website texts. The information included promotional literature, corporate discourse based on tradition/innovation and more detailed historical context. An in-depth thematic analysis was carried out using the six attributes of authenticity (Beverland, 2006) identified for the luxury wine industry, the four dimensions of brand heritage (Hudson & Balmer, 2013) and the two distinguishing elements of method of production (Gundlach & Neville, 2012). This type of case-based research allows for rich data related to the theoretical framework of constructing evidence-based storytelling to communicate wine/place distinctiveness in the minds of consumers.

## FINDINGS

The analysis of website discourse revealed uniqueness and originality when telling stories of brand ideal or concept, brand history, product taste and brand origins for all five wine producers, and included structural, implied and mythical heritage dimensions for some producers. The findings are

categorised in this section according to the six attributes of authenticity with selected excerpts to illustrate the stories recounted on estate websites.

*Heritage and pedigree: structural, implied, reconstructed, mythical*

The discourse of history or pedigree associated with the winery, the wines produced, or some form of tradition was found in all six cases and sometimes overlapped in other sections of the website. Emiliana differentiated from the other wine estates with its significant focus on organic and biodynamic wine production and by referring to a past that drives its current environmental and social sustainability practices. The story goes that José, a family member, felt a bit sick out in the field, so he convinced the family to go organic (Emiliana Seminar, 2019). Nowadays, “Emiliana is characterized by producing only organic and biodynamic wines, so that helps to preserve the natural life balance, human beings and the environment. This results in healthier, unique and better quality wines.”

The discourse of Veramonte, Garcés Silva and Kingston is particularly effective in structuring a distinctive geographical heritage that has been grafted onto a “reconstructed rural economy, introducing wine where it was little in evidence previously” (Overton et al., 2012, p. 57). Focussing on a formerly sleepy valley consisting of rural agriculture, they make particularly good use of telling the stories of their structural heritage. De Martino also focusses on the heritage of the pioneering Italian family that settled in the Maipo Valley.

K: In 1906, “Gramps” [Carl John Kingston] joined the Cerro de Pasco Mining Company as an engineer [...]. Although he never struck gold, C.J. unearthed a large dairy and cattle ranch 12 miles from the Pacific Ocean in the western hills of Chile’s Casablanca Valley. [...] In the 1990s: While in graduate school at Stanford University, Courtney Kingston wrote a business plan that had little to do with cattle and traditional farming: She wanted to plant a vineyard in the far western hills of Casablanca.

The Veramonte website and the Garcés Silva website also tell stories referring to a mythical past. The socially constructed components of an imagined idyllic past use lexical items such as “spirit”, “born”, “fruit of the sun”, “life force” and “ocean view”, as these excerpts illustrate.

V: The spirit was born at the very moment that two worlds united, back in 1889. Cabernet Sauvignon vines were brought straight from France, bonding to Apalta’s unique soils. And in 1936, when Carmenère vines took root, the spirit grew stronger, filling the air with an inexplicable energy. [...] Those who wandered through the vineyards could feel it, though they couldn’t quite explain it. And so the locals began simply to call it Neyen, the Spirit of Apalta.

[...] Neyen, ancestral spirit of Apalta, is born from the Andes Mountains, fruit of the sun and centennial vineyards.

GS: In San Juan de Leyda there is a garden with an ocean view. A garden of vineyards from the Garcés Silva Family, a privileged place of granitic soils, where they say that flowers talk with the moon and the sea breeze cools the earth when its blows.

#### *Stylistic consistency*

Consistent taste is another attribute of an authentic wine. However, this leads to a paradoxical situation: either a standardised product of consistent taste or a brand that has slight taste variations. Concerning the latter, stylistic consistency may also refer to consistency of style for consumers looking for slight taste variations from the same varieties. Research has found that positioning winemaking as constantly innovating and perpetually creating has positive association with differentiating from other wines and winemakers (Klinger, Silveira-Martins, de Castro, & Rossetto, 2020). All five described stylistic consistency on their websites while four of the wineries positioned themselves as innovative, although in different ways.

V: The intrepid spirit of that first blend guides these wines and is constantly seeking new possibilities. Representing innovation, quality and originality [...] Though each year varies slightly, Neyen seeks balance, an elegant synergy between the characteristics of each variety.

#### *Quality commitments*

Commitment to quality is an important factor in consumers' purchasing decision making and thus, of instrumental value for producers in the co-construction of discourse that resonates with consumers. Commitment to quality stood out on the Emiliana, Veramonte, De Martino and Garcés Silva websites.

DM: Since the founding of our winery in 1934, we have worked to achieve wines that represent us as a family, a promise we have maintained until today. During our 80-year history, we have fulfilled our commitment to creating wines that reflect their origin, respecting the characteristics imprinted on them by the area from which they come.

#### *Relationship to place*

Vineyards in the Casablanca region capitalise on their proximity to the Pacific Ocean and being sandwiched between the Coastal Mountain range and the Pacific. These features often result in writing stories about the wine's personality reflected and influenced by the sea, as in these excerpts from the Garcés Silva website: "As if tossed by a storm at sea, ripe tropical fruit and grapefruit blend with mineral notes and luscious vanilla from its elegant oak treatment, for a wine with great aromatic complexity." The winery architecture is "inspired by its environment, the soft rolling hills between

the Coastal Mountain Range and the sea” and “terroir with a view.” Similar strategies were applied by all wineries.

*Method of production/ingredients and materials*

Although premium wine consumers want to know the methods used to produce the variety of wines and tastes, ingredients and materials are of equal importance, especially in the discourse of organic and biodynamic processes.

E: Each of our vineyards is an accurate reflection of organic practices based on the promotion of biodiversity and the absence of pesticides, herbicides and synthetic fertilizers. [...] The biodynamic calendar (based on the cycle and rhythm of the sun, the moon, the planets and their influences) is vital for our work; it’s our guide to organize different agricultural activities to obtain the best quality wines.

Distinguishing between method of production and ingredients reflects the brand managers’ discursive strategy of providing more technical information of the winemaking process to increase consumers’ knowledge and understanding of the complicated processes that combine to make a premium product (Gundlach & Neville, 2012). In this way, websites are valuable tools to convey the stories and value behind these processes (Mora & Livat, 2013). There are references to ingredients such as native yeasts, original vines and old vines as well as the well-known story of the “lost” varietal Carmenère, which was thought to be Merlot, then rediscovered upon comparison with the few remaining vines in Bordeaux.

V: Rich in history, the Cabernet Sauvignon vines were first planted in 1889, moving on to include Carmenère in 1936. These original, own-rooted pre-phylloxera vines from France continue to produce high quality fruit year after year.

There are references to material, the notion of craft and attention to detail during harvesting, fermenting and ageing aligned with perceptions of the higher value of handmade products over machine-made (Sjostrom et al., 2016). The websites include specific information and photos of the master winemaker and the vineyard teams. In addition, some innovations, such as terracotta amphorae, allow interesting two-way conversations. Winemakers need something different to talk about for consumers who are reading and looking for something different.

DM: Our principles are based on organic farming and early harvesting (in the Chilean context), with the goal of achieving balanced alcohol levels. Our fermentation are carried out exclusively with native yeasts, rendering unnecessary winemaking additives that can alter the resulting wine. Finally, aging is carried out in concrete or stainless steel containers, old barrels, large oak foudres (5,000 liters each) or ancestral terracotta amphorae.

Marketers also realise that consumers are asking about sustainable practices and social responsibility. Two websites, Emiliana and Garcés Silva, provide detailed information about sustainability in terms of water use, ecosystem services, energy savings, residual and waste management, and forestation. In addition to being proactive in protecting the health and safety of employees, Emiliana has established a Micro-enterprise Support and Training Program to give workers the necessary training and tools to create their future micro-enterprise to produce honey, olive oil, wool and hats, all of which are bi-products of the biodynamic process. Garcés Silva seeks to “build trustful and long-lasting relations with our staff in order to offer them a work environment that enhances their abilities, improves their quality of life, and allows them a suitable professional development.”

#### *Downplaying commercial motives*

Only one of the wineries made navigating to corporate information such as annual reports, essential data and other documents regarding corporate policies quick and easy suggesting that these wine estates downplay commercial motivations. While the emphasis on environmental and social sustainability might be construed as commercial motivation since many consumers are looking for assurance of sustainability standards and practices before buying, the discourse analysed in these cases would largely indicate that the wineries and marketing managers are primarily motivated by professionalism, tradition and a love of what they are doing.

## **DISCUSSION**

H1: Chilean wineries in this study use evidence-based storytelling on their websites to communicate wine qualities and sensory qualities.

Although the cases chosen for this study represent a variety of wineries in terms of size, export volume, wine production and style, the findings reveal that all five wineries use evidence-based storytelling throughout the wine value chain in the co-construction of knowledge. However, the strategies differ with some combining evidence-based storytelling with other dimensions of storytelling to stimulate emotions. To give an example, while all provide hard evidence of the ingredients, methods used and characteristics of the wines, De Martino focusses on evidence-based technical information, such as using old terracotta amphorae, to engage the consumer in sensory experiences which are necessary outcomes of the wine value chain (Warman & Lewis, 2019). This suggests that the discourse concentrates on more sophisticated wine connoisseurs, wine experts, the serious wine drinkers and collectors.

Emiliana’s commitment to organic and biodynamic vineyards and wine making processes permeated every page of its website with technical discourse while other pages conveyed information about its environmental and social responsibility practices. Garcés Silva also used organic and environmental

practices as discursive strategies to engage in evidence-based storytelling. This suggests that targeting the organic wine consumer is an important strategy, but also a strategy to convert non-organic consumers (Gassler et al., 2019). In addition, references to winemakers and the winery team are strategies to encourage consumer associations with the firm and its products and are used to support claims of reliability and trustworthiness (Pollach, 2005). Therefore, hypotheses 1 is accepted.

H2: Chilean wineries in this study use storytelling on their websites to build emotional feelings.

The findings reveal that all wineries use references to founding families and to contextual cues from historical eras (Wilson, 2018). These dimensions are more likely to produce reactions that are affective or introspective and are used to engage consumers in more intuitive emotional appeals. Veramonte and Garcés Silva also used mythical heritage to appeal to consumers' emotions and provide a means of escaping the real world. Veramonte captures interest by telling indigenous tales of spirits and ancient customs. Stories of innovation and a visionary spirit give rise to the "birth" of wine styles. Garcés Silva engages audiences through the use of metaphor and by treating wines as people, your best friend. It creates relationships with people of similar tastes who are looking for a unique experience based on place "with a view", more particularly "with an ocean view", to escape from every-day monotony. De Martino and Emiliana explain low-yield old vines that bestow distinct flavours. De Martino also emphasises high-altitude dry-farmed vineyards using horses for ploughing and axes for pruning vines. Along with images of these techniques, the discourse creates an emotional and unique sensory appeal to consumers. Therefore, hypothesis 2 is accepted.

## CONCLUSION, CONTRIBUTIONS AND FUTURE RESEARCH

This study explored the website discourse of five Chilean wineries and revealed that storytelling strategies are important marketing tools. They are used to provide evidence-based storytelling to engage wine consumers who demand to know the complexities of what goes into the bottle of wine. Warman and Lewis' (2019) model of the conditions necessary to fulfil the wine/place experience through the value chain was used as the conceptual framework with a particular focus on evidence-based storytelling that wine science can contribute to the wine/place experience for consumers of premium wine. Although place of origin is important in wine buyers' decision making (Johnson & Bruwer, 2007), it is a much more complex concept than simply the name of the region. To respond to consumer demands for more technical information, evidence-based storytelling of the wine estate's attributes related to region of origin provides deeper understanding of the region and how it contributes to wine qualities and sensory experience.

This research provides evidence of a solid foundation for employing evidence-based storytelling as a tool that marketing executives and consultants can use to engage consumers both physically and emotionally. The results are particularly useful in formulating decisions about different communication approaches and how these approaches are often combined for better effect. Executives may use these approaches to “make explicit connections between the selection of specific signals that are intended to trigger associations on the one hand, and the cognitive and behavioural effects that they are hoping to induce on the other” (Hudson & Balmer, 2013, p. 356). In this way, the findings may serve as a guide to assist brand managers to manage storytelling, strategic discourse and social co-construction of their brands. Thus, brand managers need to tell stories, since consumers perceive that information conveyed in stories is more valued, accessible and engaging (Mora & Livat, 2013; Moulard et al., 2015). Since purchase decisions are made according to consumers’ frames of reference, managers may also need to consider that wine buying decisions are more of a learning process for international consumers who choose a Chilean wine. They may need to consider engaging the emotions of those consumers through a variety of storytelling techniques.

Of course, this study presents some limitations. First, the findings are not generalisable to all wine producers in Chile as only five cases were considered. Second, the study was unable to determine if these discursive strategies accomplish two-way communication with consumers. A study asking premium wine consumers their perceptions of wine estate online discourse, visual representations and images of the wine and winery could reveal how successful these strategies are and if some are more successful than others. Another study could explore whether exposure to these wine/place stories enhances consumers’ sensory experience when drinking the wine from a particular winery from a specific region.

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## PRESENCE IN FOREIGN MARKETS, ETHNIC MINORITY OWNERSHIP AND FINANCIAL PERFORMANCE OF HIGH-TECH SME'S

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### ABSTRACT

Small and medium enterprises (SMEs) face strong competition with larger incumbents in a fast-changing globalized economy that undermines their financial performance. For this reason, operating in foreign market could be a valuable solution to pursue growth opportunities and improve their financial performance.

The purpose of the paper is to understand the relationship between SMEs internationalization and their financial performance, and whether this effect is moderated by the presence of ethnic minority ownership. Based on a sample of 10.326 high-tech manufacturing US SMEs, our study reveals a positive relation between the number of foreign markets where SMEs operate and their financial performance. In addition, we demonstrate that this effect is positively moderated by the presence of ethnic minorities in the SMEs' ownership.

Therefore, our findings provide evidence of the strong relationship between strategic choice, in the form of presence in foreign markets, and economic results, as well as on the influence exerted by individual-level mechanisms.

*Keywords: Small Medium Enterprises, Ethnic Minority Business, Financial Performance, Strategic Agility, Foreign Market Expansion, Ownership, Microfoundations*

### INTRODUCTION

Within a fast-changing globalized economy, small and medium enterprises (SMEs) have to face strong competition with larger incumbents (Singh, Garg, and Deshmukh, 2008), leveraging on strategic agility to be more competitive. Scholars refer to strategic agility as the ability to easily adapt in dynamic environments, create different business models, and offer firms alternative business opportunities (Doz and Kosonen, 2010).

Firms can manifest strategic agility by operating in different foreign markets (Doz and Kosonen, 2008). This is because operating in multiple countries involves flexibility and the ability to change direction in light of specific market needs (Sui and Baum, 2014). However, existing research lacks a clear

understanding of whether and how strategic agility, in terms of presence in different national contexts, influences SMEs' financial performance. This paper addresses this issue by posing the following research question: how does the presence in different foreign markets influence SMEs' financial performance?

Ethnic minority ownership, defined as the presence in the ownership composition of individuals from an ethnic minority group, may be a particular source of competitiveness (Carter *et al.*, 2010). Ethnic minorities in the ownership composition may have significant effects on the strategy-performance interaction, for example on the relation between the presence of a firm in foreign markets and its financial performance. To date, this represents an open line of inquiry, which leads to the second research question of this paper: how does ethnic minority ownership moderate the relationship between the presence in foreign markets and SMEs' financial performance?

The main purpose of this paper is to examine the impact of strategic agility (measured by the presence in foreign markets) on SMEs' financial performance (measured by SMEs operating revenues) and the moderating role of the ownership identity (measured by ethnic minority ownership).

The paper develops two hypotheses and tests them based on a sample of 10326 high-tech manufacturing US SMEs registered in the Orbis database. The results of the study indicate that the presence in foreign markets is positively related to SMEs' financial performance (and that this effect is strengthened when SMEs are owned by an ethnic minority). In particular, section 2 presents theory and hypotheses; section 3 describes data and methodology; section 4 shows the results, section 5 concludes the paper by discussing key findings, implications, and future research directions.

## **THEORY AND HYPOTHESIS**

### *SMEs, strategic agility, and presence in foreign markets*

Despite their small-scale output and relatively lower scale economies, SMEs are significant contributors to employment growth and innovation and play a critical role in the development of a country (Paul, Parthasarathy and Gupta, 2017). However, SMEs face many challenges while competing with large multinational companies (Paul, Parthasarathy and Gupta, 2017), such as the difficulty to obtain technological capabilities and skilled human capital (Czarnitzki and Hottenrott, 2011), high cost of product development (March-Chordà, Gunasekaran and Lloria-Aramburo, 2002), higher failure risks (Ropega, 2011), and the lack of effective selling techniques and market research (Hashim and Wafa, 2002). For this reason, a growth strategy by international market expansion may allow SMEs to replicate the market niches where they can possibly achieve a competitive advantage, and thereby improve their financial performance (Contractor, Kundu and Hsu, 2003).

SMEs active in different international contexts may ultimately present higher financial performance

than their not internationalized counterparts since they benefit from a broader geographic scope (Lu and Beamish, 2006). However, in order to gain these benefits, SMEs need to be strategically agile (Doz and Kosonen, 2010), namely capable to make strategic commitments, while staying nimble and flexible. This capability is indeed considered to be a mean by which organizations may perform better by transforming and reinventing themselves and by adapting to changing environments (Doz and Kosonen, 2010). Operating in foreign markets represents a form of strategic agility (Doz and Kosonen, 2010) since it entails dealing with different customers and different competitive environments (Okreglicka, Gorzeń-Mitka and Ogorean, 2015). For this reason SMEs expanding in foreign markets need to make their products suitable for each different market (Knight, 2001), taking advantage from being agile.

#### *Presence in foreign markets and financial performance of SMEs*

The presence of SMEs in foreign markets, which results from a process of adaptation and/or creation of new business opportunities in diverse countries, is likely to improve their financial performance. Indeed, it is well known that SMEs suffer from the current intensive competition that often leads to a small market share for such companies (Steiner and Solem, 1988). Conversely, SMEs that are able to operate in different international contexts may ultimately present higher financial performances than their not internationalized counterparts since they have more likely a larger operating market - benefiting from a broader geographic scope (Lu and Beamish, 2006).

Second, the process that has led to the presence of SMEs in foreign markets entails the necessity to make their products suitable for each different market (Knight, 2001). This means that SMEs have traditionally been able to identify specific customers' needs, augmenting their knowledge about the different operating markets, and putting themselves in a better position to sell their products. In fact, SMEs take advantage of a leaner and more flexible decision-making process and entrepreneurial dynamism (Paul, Parthasarathy and Gupta, 2017) favored by a flatter hierarchical structure that allows to accelerate decision-making and to be more responsive in adapting and modifying their businesses.

SMEs that have expanded their business in foreign markets may lessen the competitive pressure, find new growth opportunities, and more easily pursue a sustainable growth strategy. In this respect, growth by international market expansion is an important strategic option (McDougall and Oviatt, 1994), offering SMEs with the opportunity to discover new and less crowded market opportunities, thus improving their financial performance (Lu and Beamish, 2001). Specifically, the contribution to SMEs' financial performance derived by the presence in foreign markets is linear. By increasing sales through export activities, SMEs improve their financial performance. In turn, a higher sales volume provides the possibility of a higher production volume, which enables to achieve economies of scale and increase labor productivity (Martín Jiménez *et al.*, 1985; Grant, Jammine and Thomas, 1988; Lu and

Beamish, 2006). In this way, SMEs benefit from a double source of financial performance improvement: on one side, increased sales; on the other side, cost reduction thanks to the economies of scale. Therefore, it can be argued that:

*H1. The higher the presence in foreign markets, the higher the financial performance of SMEs.*

#### *The relevance of ethnic minority ownership*

Scholars have acknowledged that individuals may be a source of strategic agility (Arbussa, Bikfalvi and Marquès, 2017) This is true especially when they occupy ownership and top management positions, and can make firms adapt in dynamic and constantly changing environments (Lewis, Andriopoulos and Smith, 2014). Specifically, the governance mechanisms of owners affect strategic agility because organizational choices are often the reflection of the values and cognitive bases of powerful actors in the organization (Hambrick, 2007); moreover, ownership identity affects the way through which the strategy is pursued to achieve profit goals (Carter *et al.*, 2010). The ownership identity influences the proclivity to take risks and expand the scale and scope of a firm's internationalization efforts (George, Wiklund and Zahra, 2005; Oesterle, Richta and Fisch, 2013). Similarly, export orientation and performance are positively associated with the presence of a "returnee" entrepreneur (described as a professional returning to his/her home country after a period of education or work abroad with an acquired international experience and an expanded network of potential partners) (Filatotchev *et al.*, 2009).

#### *The moderating role of ethnic minority ownership*

In this context, cultural diversity in the ownership board has been underlined for its potential to affect the effectiveness of internationalization strategies (Bock *et al.*, 2012). Indeed, the presence of ethnic minority in the ownership structure strengthens the relationship between strategic agility and financial performance by bringing heterogeneity and multiple perspective and attitudes. There are several reasons for that.

First, according to a resource-dependent perspective, difference in ethnicity will very likely produce unique information sets that are available to management for better decision making.

Second, ethnic minorities show distinctive traits in terms of: natural trading instinct (Wauters and Lambrecht, 2008), achieving higher results (Meadwell, 1989), attention to the community (Jamal, 2003), access to a close network of potential partners (Ram and Smallbone, 2003), compliance with social value patterns. Eventually, the international strategy of minority-owned SMEs will increase the number of potential markets and trigger more business opportunities that can improve financial performance. Third, owners belonging to an ethnic minority are more prone to approach different foreign cultures (Freedman and Barth, 1970), and this is likely to be reflected across the whole organization given their

top-management position and the flatter structure of SMEs. Consequently, SMEs will experience increased effectiveness of operating in foreign markets, with particular regard to the possibility to understand, satisfy, and learn from more diversified, international customers (Altinay, Saunders and Wang, 2014). Fourth, the higher disposition towards external opportunities encourages and amplifies the process of learning from the new international contexts (Michailova and Wilson, 2008). Last, the general risk aversion of people belonging to ethnic minorities fosters the choice of pursuing (low-commitment and low-risk) internationalization strategies (Johanson and Vahlne, 2009).

Following the foregoing discussion, the presence of ethnic minorities in the ownership composition reinforces the expansion in foreign markets by SMEs, thus further increasing prospective benefits on financial performance. Stated more formally:

*H2. The relationship between the presence in foreign markets and the financial performance of SMEs is positively moderated by the presence of ethnic minority in the ownership structure.*

## **DATA AND METHODS**

### *Data collection*

Data for hypothesis testing were collected from the Orbis database (Bureau van Dijk). Specifically, a sample of high-tech manufacturing US SMEs was taken into account. It should be noted that the US context was chosen because US SMEs manifest a peculiar strategic intent to move into foreign markets to improve their competitive potential (OECD, 2004). Furthermore, ethnic minority issues are particularly evident in the US context, that is one of the countries with the highest variance of ethnicities, including ethnic minorities, thus allowing a better examination of the phenomenon of ethnic minority ownership (Froy and Pyne, 2011). The choice of focusing on high-tech manufacturing SMEs lies in the fact that market expansion is especially evident for such type of SMEs, as compared to SMEs belonging to low-tech and/or service industries (Spence and Crick, 2006).

In detail, for data collection, a search was made in the Orbis database for US companies classified as SMEs and belonging to high-tech sectors - as identified following sector industrial codes suggested by (Gomez-Mejia *et al.*, 2014). Among all the identified firms, the sample was restricted to 10.326 SMEs for which information on financial performance (in 2017) and ownership was available.

### *Variables*

The dependent variable of the study (*Financial Performance*) was measured as the natural logarithm of a SME's operating revenue (see Collins-Dodd, Gordon, and Smart, 2004). The independent variable (*Foreign Markets*) was calculated by counting the number of main foreign markets in which a SME operates (Ellis, 2007), as indicated in the Orbis database. The moderating variable (*Ethnic Minority*

*Ownership*) is a binary variable taking the value of 1 if a SME is recognized as minority-owned by the Orbis database – that is when a SME is at least 51% owned by, and whose management and daily business operations are controlled by, one or more members of a socially and economically disadvantaged minority group.

Control variables were added to improve the reliability of the analysis. First, firm age (*Firm Age*) (Sørensen and Stuart, 2000) computed as 2017 minus the incorporation year was considered. Second, a variable considering the firm size (*Firm size*) in terms of number of employees (Damanpour, 1992) was added. Third, in order to take into account the level of innovativeness of a SME, the number of patents it owns (*Innovativeness*) (Hall, Jaffe and Trajtenberg, 2005) was calculated. Fourth, the number of branch locations recorded worldwide by an SME (*Branch Locations*) (Hoopes, 1994) was taken into account. Fifth, regarding the ownership structure, information was gained on the number of recorded shareholders (*Shareholders*) (Amihud, Mendelson and Uno, 1999), included a dummy variable in case a SME is also a woman-owned enterprise (*Woman Owned*) (Piperopoulos, 2012), and considered the share of family owners who are also managers (*Family Management*) (Block, 2011). Finally, dummy variables controlling for an SME's main sector (*Dummy Sectors*) were included.

### Results

Table 1 and Table 2 show descriptive statistics and pairwise correlations respectively. Correlation values are all below 0.70, thus limiting multicollinearity concerns (Cohen *et al.*, 2003). An ordinary least square (OLS) regression with robust standard errors was used to test the hypotheses. Indeed, a cross-sectional dataset where the dependent variable assumes continuous, not censored values (Wooldridge, 2015) was built. Table 3 presents the results. Model 1 provides the baseline model, including control variables and the moderating variable (*Ethnic Minority Ownership*). Model 2 adds the independent variable (*Foreign Markets*). Model 3, the full model, includes the coefficient estimates of the interaction term *Ethnic Minority Ownership X Foreign Markets*.

Table 1. *Descriptive statistics*

| Variable                    | Mean  | Dev. Std. | Min  | Max  |
|-----------------------------|-------|-----------|------|------|
| 1-Financial Performance     | 6.40  | 1.16      | 5.52 | 8.92 |
| 2-Foreign Markets           | .017  | .38       | 0    | 19   |
| 3-Ethnic Minority Ownership | .13   | .34       | 0    | 1    |
| 4-Woman Owned               | .131  | .34       | 0    | 1    |
| 5-Family Management         | 1.83  | 13.19     | 0    | 100  |
| 6-Shareholders              | .24   | .62       | 0    | 13   |
| 7-Innovativeness            | .97   | 10.44     | 0    | 919  |
| 8-Branch Locations          | .34   | 1.36      | 0    | 26   |
| 9-Firm Size                 | 9.23  | 14.48     | 1    | 75   |
| 10-Firm Age                 | 21.86 | 15.93     | 0    | 187  |

Table 2. *Pairwise correlations*

|                             | 1      | 2     | 3      | 4      | 5     | 6     | 7     | 8     | 9     | 10 |
|-----------------------------|--------|-------|--------|--------|-------|-------|-------|-------|-------|----|
| 1-Financial Performance     | 1      |       |        |        |       |       |       |       |       |    |
| 2-Foreign Markets           | 0.02*  | 1     |        |        |       |       |       |       |       |    |
| 3-Ethnic Minority Ownership | -0.04* | 0.04* | 1      |        |       |       |       |       |       |    |
| 4-Woman Owned               | -0.01  | 0.02* | 0.35*  | 1      |       |       |       |       |       |    |
| 5-Family Management         | 0.12*  | 0.02  | 0.01   | -0.01  | 1     |       |       |       |       |    |
| 6-Shareholders              | 0.04*  | -0.00 | -0.05* | -0.04* | 0.27* | 1     |       |       |       |    |
| 7-Innovativeness            | 0.06*  | -0.00 | -0.02* | -0.02  | 0.07* | 0.10* | 1     |       |       |    |
| 8-Branch Locations          | 0.19*  | 0.01  | -0.04* | -0.02* | 0.02  | 0.01  | 0.04* | 1     |       |    |
| 9-Firm Size                 | 0.51*  | -0.00 | -0.04* | -0.02* | 0.20* | 0.08* | 0.06* | 0.15* | 1     |    |
| 10-Firm Age                 | 0.23*  | 0.01  | -0.07* | -0.04* | 0.09* | 0.04* | 0.02  | 0.05* | 0.21* | 1  |

\*p&lt;0.05

Table 3. *Table 3. OLS results with robust s.e.*

|   | Model 1   | s.e. | Model 2   | s.e. | Model 3   | s.e. |
|---|-----------|------|-----------|------|-----------|------|
| Foreign Markets                             |           |      | .038**    | .018 | .032*     | .018 |
| Foreign Markets X Ethnic Minority Ownership |           |      |           |      | .508***   | .158 |
| Ethnic Minority Ownership                   | -.061**   | .030 | -.060**   | .030 | -.063**   | .030 |
| Woman Owned                                 | .038      | .030 | .039      | .030 | .038      | .030 |
| Family Management                           | .001      | .001 | .001      | .001 | .001      | .001 |
| Shareholders                                | -.024     | .020 | -.025     | .020 | -.025     | .020 |
| Innovativeness                              | .003**    | .001 | .003**    | .001 | .005**    | .001 |
| Branch Locations                            | .099***   | .008 | .100***   | .008 | .099***   | .008 |
| Firm Size                                   | .037***   | .001 | .037***   | .001 | .037***   | .001 |
| Firm Age                                    | .009***   | .001 | .009***   | .001 | .009***   | .001 |
| Dummy Sector                                |           |      |           |      |           |      |
| Constant                                    | 5.81***   | .045 | 5.806***  | .045 | 5.801***  | .045 |
| F statistic                                 | 161.22*** |      | 153.31*** |      | 145.04*** |      |
| R2  | 0.2919    |      | 0.2920    |      | 0.2924    |      |

N=10326; \*p&lt;0.10; \*\*p&lt;0.05; \*\*\*p&lt;0.01

According to model 1, the financial performance of SMEs is positively related to a SME's innovativeness ( $\beta=0.003$ ,  $p<0.05$ ), number of branch locations ( $\beta=0.099$ ,  $p<0.01$ ), firm size ( $\beta=0.037$ ,  $p<0.01$ ), and firm age ( $\beta=0.009$ ,  $p<0.01$ ), whereas it is negatively related to ethnic minority ownership ( $\beta=-0.061$ ,  $p<0.05$ ). Model 2 supports Hypothesis 1 since the linear term of Foreign Markets is positive and significant ( $\beta=0.038$ ,  $p<0.05$ ). For robustness, in a separate model, the presence of curvilinear effects was tested by adding the quadratic term of Foreign Markets. The quadratic term was found not significant, hence confirming the initial conjecture. Model 3 proves in line with Hypothesis 2. Indeed, the interaction term Ethnic Minority Ownership X Foreign Markets is positive and statistically significant ( $\beta=0.508$ ,  $p<0.05$ ). To gain additional insight into the moderating effect of Ethnic Minority

Ownership, a simple slope analysis (Toothaker, Aiken and West, 1994) was carried out. Different levels of Ethnic Minority Ownership - high (when a SME is ethnic-minority owned) and low (when a SME is not ethnic-minority owned) – were included.

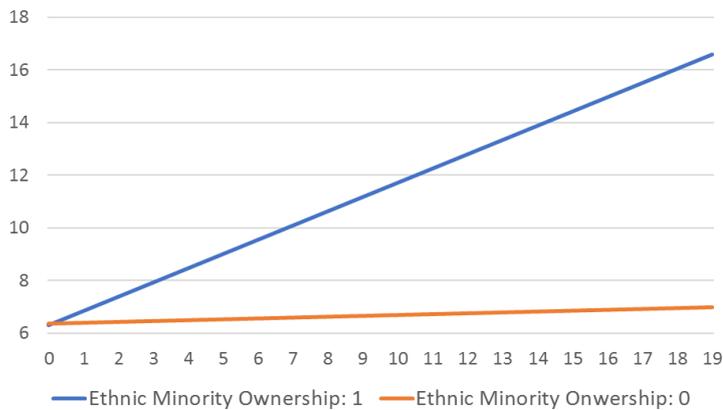


Figure 1. *Robustness check for the effect of Ethnic Minority Ownership*

Afterward, the effect of Foreign Markets on Financial Performance was plotted for both levels of Ethnic Minority Ownership (Figure 1). Figure 1 provides further support for Hypothesis 2 since higher financial performance manifests at the high level of Ethnic Minority Ownership.

## DISCUSSION AND CONCLUSION

Based on a sample of 10,326 high-tech manufacturing US SMEs, the present study examines the relationship between the presence in foreign markets and the financial performance of SMEs, revealing a positive and significant relationship, which can be ascribed to theories related to strategic agility. In addition, we also assessed the influence of the presence in foreign markets on SMEs' financial performance, showing that the presence of ethnic minority positively moderating the relation between the number of foreign markets and SMEs' financial performance.

The study contributes to literature of SMEs internationalization and financial performance, seen through the lens of strategic agility. Also, it adds to literature of strategic micro-foundations by providing the missing link between firm's internationalization and owners' identity. Indeed, the idea of the moderating role of the owners from ethnic minorities in the strategic agility-financial performance relation is here suggested; our research stands as one of the first attempts to consider this moderating factor on this relationship, especially in the SMEs context.

The present research addresses important implications for the practitioner side. First, we advise managers to expand into foreign markets, thus developing agility to compete in different environmental and market contexts, in perspective of a financial performance improvement. Managers are advised that they may elude the competitive pressure of the larger competitors by exploiting their

resources to expand in foreign markets. Second, practitioners should take advantage of the lean structure of SMEs where ownership and management often overlap (Brunninge, Nordqvist and Wiklund, 2007), and convert it into an advantage by assigning a major role to the human element in the shape of the owner, which plays a key role in a SME. Indeed, the ownership structure of a SME would be positively affected by the presence of an individual belonging to an ethnic minority, especially with a view to an internationalization strategy through foreign market expansion. This presence may give a positive boost to the expansion operations, adding a superior value to the process and empowering the internationalization strategy. This may mean that, in defining the ownership structure (for example, in the start-up phase), ethnic minority people should not be neglected, especially if a SME intends to operate or is already operating in different national contexts. In turn, these outcomes could be helpful for funding organizations and/or venture capitalists by providing them with an additional lens to assess the SMEs.

The widespread diffusion of SMEs and their increasing importance in any national economy (Amini, 2004) has attracted the attention of policy makers. These should be aware that it is important to stimulate SMEs' export orientation, maybe by facilitating the legal procedures to sell in foreign markets, hence favoring the connection between foreign countries through ad-hoc agreement, which may encourage such export orientation of SMEs, and introducing incentives for exporting activities. In addition, policy makers should consider the positive effect of ethnic minority on the strategic agility-financial performance relation for SMEs, thus supporting the inclusion of ethnic minorities in SMEs ownership, for example through a potential advantageous treatment.

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## CROSS-BORDER M&A MOTIVATIONS AND INSTITUTIONAL FACTORS FOR EMNCs: EXAMINATION OF TURKISH MNCs

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### ABSTRACT

EMNCs have been taken significant interest in international business studies for almost two decades. Understanding EMNCs and their motivations for outward internationalization from different EM contexts is still relevant even if asset exploration view has been dominated the research domain so far. This study aims to find out whether market seeking and strategic asset seeking OFDI have any effect on the ownership level of Turkish MNCs in CBMAs by using the lens of eclectic paradigm and institution-based view. 351 completed CBMAs during 1990-2017 by Turkish companies have been analyzed to test the research model. The results of Tobit regression analyses have shown that both market seeking and strategic asset seeking OFDI has a positive effect on the ownership level of Turkish MNCs in CBMAs. However, institutional differences between Turkey and host countries do not moderate these relationships. This study indicates that OLI paradigm can still explain MNCs behavior despite the country of origin and context related issues. The study has provided evidence for practitioners that location specific motivations are important for ownership strategy in foreign subsidiaries. Besides, it shows that institutional environment would be considered as a more manageable constraint for EM firms in CBMAs.

*Keywords: Cross-border merger and acquisitions, emerging markets, institutional environment, Multinational Corporations, Turkey*

### INTRODUCTION

Emerging markets (EMs) have succeeded considerable amount of outward foreign direct investment (OFDI) after 1990s neo-liberal economic policies applied in these economies (Child and Rodrigues, 2005). For instance, OFDI of EMs for the year of 2018 has reached 417 billion USD by the huge contribution of cross-border merger and acquisitions (CBMAs) that is executed by emerging market multinational corporations (EMMNCs) (Meyer et al., 2018; UNCTAD, 2019). As other EMs, Turkey has succeeded significant CBMA activity with 2,63 billion USD value in 2017 to increase its OFDI (UNCTAD, 2018). The increased presence of EM firms' cross-border investments has inspired scholars

to develop new internationalization theories or to expand current ones to explain EMNCs OFDI. The most known ones of these theories are Dunning's (1988) OLI paradigm and Mathews' (2006) LLL paradigm. In addition to this, institution based-view has been used as a theoretical lens for explaining accelerated internationalization of EMNCs since EMs are generally known for their weak institutional environments (Hoskisson et al., 2000; Khanna and Palepu, 1997). This theoretical base has been widely used due to findings about EMNCs' escape motivation from underdeveloped institutional and market conditions in home countries for OFDI (Cuervo-Cazurra and Genc, 2008; Yamakawa, *et al.*, 2008; Ramamurti, 2012). In the case of Turkish MNCs, the increased amount of OFDI in recent years have generally directed to European and North American countries which also have more developed institutional environments (Deloitte, 2016). Besides, recent findings about Turkish MNCs have indicated that their cross-border investments have been generally shaped by market and strategic asset seeking motivations and equity ownership levels in foreign subsidiaries decreases as institutional distance increases (Ilhan-Nas *et al.*, 2018; Yaprak, *et al.*, 2018). Despite their significant contribution to global FDI, location specific motivations of EMNCs have not been investigated considerably so far. Moreover, the studies about CBMAs of EMNCs have been covered Chinese or Indian firms in general (Buckley *et al.*, 2007; De Beule and Duanmu, 2012; Ramasamy, *et al.*, 2012; Yang and Deng, 2017). For this reason, investigating OFDI motivations of EMMNCs from different contexts would enrich the related literature and give insights about how macro environment and context dependent factors would regulate these motivations.

This study has proposed to investigate the effect of location specific motivations on ownership level of Turkish MNCs' CBMAs and how institutional differences between host countries and Turkey affect these relationships. The research hypotheses have been developed through OLI paradigm and institution-based view. The research context of Turkey is suitable for this study since it is a mid-range emerging economy with considerable level of infrastructural and institutional development and has succeeded significant amount of OFDI after 2002 (Hoskisson et al., 2013).

## **THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT**

Dunning's eclectic paradigm has been the mostly studied approach and had the widest scope for more than 40 years in internationalization studies (Eden and Dai, 2010). Eclectic paradigm's main assumption proposed that firms can practice international production if they have ownership (O), location (L) and internalization (I) advantages. Firms would make OFDI when they have competitive advantages developed in the home country (O), can use these advantages in host regions like in home countries (L) and effectively use these advantages in those regions (I) (Dunning, 1998). However, OLI paradigm has been criticized by some scholars in international business (IB) studies due to its lack of

explanatory power for internationalization of EMMNCs since these companies do not possess ownership advantages like developed technology, brand reputation, financial assets and managerial knowledge as advanced country MNCs to operate in foreign countries (Bonaglia, *et al.*, 2007; Madhok and Keyhani, 2012; Ramamurti, 2012). As a consequence, theories like springboard perspective or linkage-leverage-learning (LLL) paradigm has been developed by scholars to explain internationalization of EMMNCs via asset exploration rather than asset exploitation (Luo and Tung, 2007; Mathews, 2006). Furthermore, accelerated internationalization of EMMNCs has composed of diverse internationalization modes like original equipment manufacturing (OEM), joint ventures (JV), CBMAs and greenfield investments (Child and Rodrigues, 2005; Yaprak, *et al.*, 2018). The most widely preferred entry mode strategy of EMMNCs for OFDI is CBMAs since these firms want to decrease negative effects of advantage asymmetries between them and advanced country MNCs (Buckley *et al.*, 2007; Madhok and Keyhani, 2012). This situation contradicts with OLI paradigm's main assumption about internalizing O advantages in the home country rather than host countries and incremental internationalization (Yeganeh, 2016). On the other hand, recent studies have proposed that MNCs can get O advantages like knowledge-based competences in the host country rather than developing them at home and added a new type of advantage called as institutional ownership (Oi) to explain internationalization of EMMNCs and the ability of a firm's designing abilities of its institutional environment (Buckley and Hashai, 2009; Dunning and Lundan, 2008). Another important proposition of OLI paradigm is related to the motivations of MNCs for OFDI. MNCs generally motivated by seeking new markets and strategic assets, accessing natural resources, increasing efficiency in operations while making OFDI (Dunning, 1998). Nevertheless, EMMNCs' OFDI motivations have been shaped by different contexts and can be summarized as seeking new markets to increase export, exploring strategic assets like global brand building, improving value chain and accessing natural resources for energy supplies. Natural resource and efficiency seeking OFDI may not be so important for EMMNCs since these firms have already exploit lower labor costs at home country and natural resources can get through contractual agreements with other countries (Buckley *et al.*, 2007; Gubbi, 2015; Dikova, *et al.*, 2019). Besides, accelerated internationalization of EMMNCs have been analyzed through country specific advantages (CSAs)-firm specific advantages (FSAs) framework which highlights the importance of country related competences like lower labor costs and necessitates to treat OLI paradigm's motivations in different contexts (Rugman and Verbeke, 2003). For example, Turkish MNCs OFDI decisions have driven by both strategic asset and market seeking motivations via exploiting both FSAs (financial supremacy, ability of value chain adaptations, learning skills and ability to use low-cost resources) and CSAs (adaptation capabilities to imperfect markets, strong

network ties, geographical proximity to key regions, government incentives, low-cost resources) (Yaprak, *et al.*, 2018).

Markets with large in size have been preferred more by MNCs since they can offer economies of scale and effective distribution channels (Buckley *et al.*, 2007; Brouthers, *et al.*, 2008; Tolentino, 2010). Moreover, EMMNCs like developed country MNCs seek for new markets during their OFDI activities (De Beule and Duanmu, 2012; Amighini, *et al.*, 2013; Deng and Yang, 2015; Gubbi, 2015). However, findings about market seeking OFDI of EMMNCs are restricted to Indian or Chinese MNCs. For instance, Turkish MNCs prefer OFDI to escape saturated and uncertain home markets and they can diversify geographic risk factors by entering into bigger markets (Deng and Yang, 2015; Erdilek, 2008). Moreover, Turkish firms have been used to operate in uncertain institutional environments and expand though rent-seeking behavior in home country. As a result, they choose higher level of ownership to get benefits of market rent (Filatotchev *et al.*, 2007; Yaprak and Karademir, 2011). For this reason, Turkish MNCs would prefer higher level of ownership in CBMAs when entering in foreign markets with bigger sizes.

*H1: The level of ownership in CBMAs of Turkish MNCs would increase as the host country market size increases.*

Strategic alliances and JVs of Turkish MNCs with western MNCs during 1990s have amplified the ability of these companies to make international investments and to develop technology. However, they are still lack of global brand reputation, developed production technologies and extensive global distribution channels to operate in foreign countries (Demirbag and Tatoglu, 2008; Yaprak, *et al.*, 2018). For example, Arçelik has improved its brand reputation and technological assets via sequential and successful CBMAs in recent years (Bonaglia, *et al.*, 2007; Erdilek, 2008). In addition to this, Sabancı Group's acquisition of DUSA (a JV with DuPont) and Ülker's acquisition of Godiva are other instances of strategic asset seeking OFDI of Turkish firms (Aybar, 2016). The willingness to move upstream in global value chains and to get higher financial return while doing this would cause to choose higher level of ownership in CBMAs of Turkish MNCs (Yang and Deng, 2017; Yaprak, *et al.*, 2018).

*H2: The level of ownership in CBMAs of Turkish MNCs would increase as the host country strategic endowments increase.*

According to institution-based view, institutions reduce uncertainty in economic transactions by establishing legal and regulatory systems in an environment (North, 1990; Scott, 1995). Furthermore, the increased OFDI activity of EM firms in advanced markets have been generally driven by escape motivation from underdeveloped institutional environment and market conditions of home country in recent years (Cuervo-Cazurra and Genc, 2008; Yamakawa, *et al.*, 2008; Ramamurti, 2012). While wealthy customers in advanced markets are being called as "pull" factors, selective support of home

country government for big business groups, weak institutional environment and property rights and escaping motivation from bad home country image are called as “push” factors for accelerated internationalization of EMMNCs in the related literature (Yamakawa, *et al.*, 2008; Cuervo-Cazurra and Ramamurti, 2015). The more developed host country institutional environment would guarantee property rights and economic transactions for EM firms and this would also increase the CBMAs of EM firms in developed countries (Zhang, *et al.*, 2011; De Beule and Duanmu, 2012; Stoian and Mohr, 2016). Additionally, Turkish MNCs have preferred to make CBMAs in Europe and North America regions that have more developed institutional environments, mature markets and rich strategic assets in general (Deloitte, 2016). This indicates that as institutional distance between host countries and Turkey increases, CBMA activity by Turkish firms in these regions would increase. Even if Turkish MNCs have preferred lower level of equity ownership in institutionally distant countries (Ilhan-Nas *et al.*, 2018), they also prefer advanced institutional environments for international investments to gain higher market share and to build competitive advantages (Yaprak, *et al.*, 2018). Consequently, the desire of Turkish MNCs to control acquired company more would increase in advanced institutional environments for their strategic asset and market seeking CBMAs.

*H3a: The relationship between ownership level of Turkish MNCs and host country market size for CBMAs would be stronger when institutional distance between host country and Turkey increases.*

*H3b: The relationship between ownership level of Turkish MNCs and host country strategic endowments for CBMAs would be stronger when institutional distance between host country and Turkey increases.*

## METHODOLOGY

The sample of the study has been gathered through ZEPHYR and Thomson Reuters EIKON databases for completed CBMAs of Turkish firms. The sample consists of 351 completed CBMAs by Turkish firms between 1990-2017. Acquisitions with acquired ownership stake less than 10% has been eliminated from final sample since they have been treated as portfolio investments in the literature (Tatoglu *et al.*, 2014). The variables that have been in the research model have been summarized in Table 1.

| Variables                            | Measurement  | Source                           |
|--------------------------------------|--|----------------------------------|
| Ownership level                      | The percentage of acquired stake in CBMA of Turkish MNCs (Ranges between 10% and 100%) | Zephyr and Thomson Reuters EIKON |
| Host country market size             | LogGDP of host country   | Worldbank WDI                    |
| Strategic endowments of host country | Total patent registrations by both residents and non-residents in host country         | Worldbank WDI                    |

|                                 |  |  |
|---------------------------------|--|--|
| Institutional Distance          | The difference of Economic Freedom Index between host country and Turkey                             | Heritage Foundation                          |
| Business Group Affiliation (BG) | BG affiliates are coded as "1" and non-affiliates are coded as "0"                                   | Financial reports and web sites of companies |
| CBMA experience                 | Number of previous CBMAs by Turkish MNCs executed before related acquisition                         | Zephyr and Thomson Reuters EIKON             |
| Home country market size        | LogGDP of Turkey   | Worldbank WDI                                |
| Industry relatedness            | Coded as "1" if the target and acquirer company are in the same industry and as "0" if they are not. | Zephyr and Thomson Reuters EIKON             |

**Table 1. Summary of Variables**

## RESULTS

The research model has been analyzed through Tobit regression since our dependent variable is bounded between 10% and 100% (Chari and Chang, 2009; Deng and Yang, 2015). The findings of hypotheses testing have been summarized in Table 2. All control variables are tested through Model 1. While independent variables are tested through Model 2, 3 and 4, the effect of moderator variable is tested by Model 5 and 6. Due to missing values in some variables, there can be seen differences among observation numbers through Model 1-6. Among all control variables, only CBMA experience and home country market size have shown significant relationship between ownership level in CBMAs according to Model 1. While CBMA experience of Turkish firms has a negative relationship between ownership level ( $\beta = -0.029$ ,  $p < 0.01$ ), home country market size has shown a positive relation ( $\beta = 0.067$ ,  $p < 0.05$ ) with ownership level in CBMAs. H1 is accepted according to Model 2 as our results have shown a positive and significant effect ( $\beta = 0.059$ ,  $p < 0.01$ ) of host country market size on ownership level of Turkish firms in CBMAs. However, the association of strategic endowments in host country and the ownership level of CBMAs of Turkish firms has shown a weak support ( $\beta = 0.00$ ,  $p < 0.1$ ) for H2 in Model 3. This weak relationship has disappeared in Model 4 when both host country market size and strategic endowments are included into the model. Moreover, both Model 5 and Model 6 did not provide support for H3a and H3b that have proposed the moderating effect of institutional distance on the relationships between host country market size and strategic endowments and ownership level of CBMAs of Turkish MNCs.

| Variables                            | Model 1 | Model 2             | Model 3 | Model 4            | Model 5            | Model 6            |
|--------------------------------------|---------|---------------------|---------|--------------------|--------------------|--------------------|
| Host country market size             |         | 0.059***<br>(0.019) |         | 0.056**<br>(0.023) | 0.052**<br>(0.024) | 0.052**<br>(0.025) |
| Strategic endowments of host country |         |                     | 0.000*  | 0.000              | 0.000              | 0.000              |

|   |           |           |           |           |           |           |
|---|-----------|-----------|-----------|-----------|-----------|-----------|
|   |           |           | (0.000)   | (0.000)   | (0.000)   | (0.000)   |
| Institutional Distance                                      |           |           |           |           | 0.003     | 0.001     |
|   |           |           |           |           | (0.018)   | (0.001)   |
| Institutional Distance*Host country market size             |           |           |           |           | -0.000    |           |
|   |           |           |           |           | (0.002)   |           |
| Institutional Distance*Strategic endowments of host country |           |           |           |           |           | -0.000    |
|   |           |           |           |           |           | (0.000)   |
| Industry relatedness  | 0.001     | 0.013     | 0.002     | 0.013     | 0.011     | 0.011     |
|   | (0.035)   | (0.034)   | (0.034)   | (0.034)   | (0.035)   | (0.035)   |
| BG Affiliation  | 0.016     | 0.008     | 0.014     | 0.008     | 0.007     | 0.007     |
|   | (0.038)   | (0.037)   | (0.038)   | (0.038)   | (0.038)   | (0.038)   |
| CBMA experience   | -0.029*** | -0.026*** | -0.026*** | -0.025*** | -0.025*** | -0.025*** |
|   | (0.009)   | (0.009)   | (0.009)   | (0.009)   | (0.009)   | (0.009)   |
| Home country market size                                    | 0.067**   | 0.039     | 0.059*    | 0.039     | 0.041     | 0.041     |
|   | (0.034)   | (0.035)   | (0.035)   | (0.035)   | (0.036)   | (0.036)   |
| Constant  | -1.097    | -1.016    | -0.885    | -0.986    | -0.985    | -0.990    |
|   | (0.932)   | (0.921)   | (0.938)   | (0.932)   | (0.946)   | (0.940)   |
| Observations  | 351       | 351       | 350       | 350       | 350       | 350       |
| R <sup>2</sup>  | 0.032     | 0.058     | 0.042     | 0.058     | 0.059     | 0.059     |

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 2. Tobit regression results**

## CONCLUSION

This study has aimed to find out how market and strategic asset seeking motivations affect the ownership level that is chosen in CBMAs of Turkish MNCs and the role institutional environment on these relationships. According to findings, when Turkish MNCs do market seeking OFDI, the ownership level in CBMAs would increase. Additionally, the hypothesis related to strategic asset seeking OFDI's positive effect on ownership level in CBMAs is partially supported. Nevertheless, there is no moderating influence of institutional distance between host country and Turkey on these relationships. These findings showed that both strategic asset and market seeking motivations can determine the level of acquired stake in CBMAs of Turkish companies. Moreover, our findings have indicated that theories like OLI paradigm developed for advanced MNCs can also be applied to examine EMNCs' internationalization strategies and motivations. Additional theoretical approaches can be merged with OLI paradigm to understand EMNCs OFDI motivations and context for future studies. Although OLI paradigm proposes natural resource and efficiency seeking motivations with strategic asset and market seeking motivations to explain MNCs OFDI decisions, our research model has not considered natural resource and efficiency seeking motivations to explain Turkish MNCs CBMA investments. The findings in the related literature have proposed that Turkish MNCs prefer OFDI to take advantage of market expansion while overcoming trade barriers and to access knowledge and technology-based resources in foreign markets. As a result, natural resource and

efficiency seeking OFDI is not considered in this study as determinants of Turkish MNCs OFDI (Erdilek, 2008; Eren-Erdogmus *et al.*, 2010; Yaprak and Karademir, 2011; Yaprak, *et al.*, 2018). On the other hand, future studies may include host country's natural resource base and efficiency advantages in research models as control variables. Measuring efficiency in host countries can be a burden for these studies.

Moreover, the insignificant moderating effect of institutional distance on internationalization strategy of Turkish MNCs in our study indicates that institution-based view can be operationalized with different measurements and contexts for future studies. Because institutional environment has been significant for EMNCs investments in host country as much as home country (Deng and Yang, 2015; Malhotra, *et al.*, 2016; Ilhan-Nas *et al.*, 2018; Dikova, *et al.*, 2019). Consequently, examining different institutional environment factors in detail may provide more definite findings for future studies.

The managers of MNCs from EMs can make more appropriate decisions when deciding about level of ownership in cross-border investments as an implication of this study. Moreover, policy makers and managers of EMMNCs can consider the relationship between strategic assets of the host country and their contribution to EMMNCs resource base in different levels of ownership according to findings of the study. Policy makers can encourage EM firms to invest in countries that both have market opportunities and strategic resources to transfer knowledge into EMs.

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# DO EMPLOYEES VALUE CSR IN EMERGING ECONOMIES: IMPACT OF INTERNAL AND EXTERNAL CSR PRACTICES ON ORGANIZATIONAL COMMITMENT

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## ABSTRACT

This study examined the impacts of employees' perceptions regarding both internal and external Corporate Social Responsibility (CSR) practices on employees' organizational commitment separately. Further, the study also examined the contributory role of external CSR on the link between perceived internal CSR on employees' OC. The findings ascertain that positive impacts of employees' perceptions of customer, government, environment and employee related CSR practices on OC are consistent with the previous research findings. The current study contributes to the previous literature by investigating the impacts of both internal and external CSR initiatives related to the primary stakeholders in an emerging market context. This analysis also shows that when employees perceive that their firm also cares for external stakeholders and invests in external CSR activities, the positive impact of employees perceived internal CSR in other words employee-related CSR on OC becomes stronger.

*Keywords: Corporate Social Responsibility, external CSR, internal CSR, organizational commitment, emerging markets.*

## INTRODUCTION

There is a growing academic interest on Corporate Social Responsibility (CSR) strategies and activities of the firms over the past decades (Aguinis & Glavas, 2012). Majority of the academic research focused on the level of engagement of the firms towards CSR as well as the effects of these engagements on organizational level outcomes such as financial, market and social performance (Du et al. 2010; Greening & Turban, 1997; 2000; Lee et al. 2012; McElhaney, 2009; Paek et al. 2013; Scherer & Palazzo, 2011). However, current studies in the literature started to concentrate on the individual level outcomes of companies' CSR activities to accentuate the responsibilities of the firms defined beyond the traditional economic and legal ones (Aguilera et al., 2007; Ali et al. 2010; De Roeck et al., 2014; Gond et al. 2017; McWilliams et al., 2006; Mory et a. 2016; Rupp & Mallory, 2015). CSR "the managerial

*obligation to take action to protect and improve both the welfare of society as a whole and the interest of organizations"* (Davis & Blomstrom, 1975, p. 6) nowadays is described by a combination of firm's initiatives which are not only related to money-making or legal compliance but also necessitates the encouragement of ethical and good causes, establishing good practices and carrying out philanthropic activities and several scholars had investigated their effects on individual-level outcomes such as employees' organizational commitment (e.g. Glavas & Piderit, 2009; Ali et al. 2010; Gond et al., 2017; Kim et al. 2010; Lee et al. 2018; Maignan et al. 1999), employees' engagement (e.g. Glavas & Kelley, 2014; Caligiuri et al. 2013; Grant et al. 2008; Lu et al. 2020), employees' organizational identification (e.g. Carmeli et al. 2007; Farooq et al. 2014; Rodrigo & Arenas, 2008), employees' organizational citizenship behavior (e.g. Jones, 2010; Lin et al. 2010, Lyau, et al. 2010), and employee retention (e.g. Catano & Morrow Hines, 2016; Farooq et al., 2019; Jones, 2010). The aim of our study is to focus exclusively on these individual level outcomes, labeled by several scholars as micro-CSR (Morgeson et al., 2013) and to analyze the impact of firm-level CSR on employees' organizational commitment (OC), an individual-level outcome.

However, although the literature distinguishes between internal and external CSR, studies generally investigated individual level outcomes of CSR as a whole. In other words the internal and external CSR dimensions were not explicitly distinguished (Aguinis & Glavas, 2012; Mory et al. 2016). Most micro CSR research examining the link between CSR and diverse workers' behaviors has seldomly analyzed the differential impacts of internal and external CSR practices (Brammer et al., 2007; Mueller et al., 2012; Zhu et al., 2012). We propose that as the perceived external CSR appears to be others-focused whereas the perceived internal CSR appears to be self-focused this distinction is imperative from an employee point of view (Hameed et al. 2016). Consequently, these two façades can have a different influence on employees' related attitudes and behaviors. Therefore, as recognized by several researchers CSR is a multidimensional concept, the focus of this study will be on both the internal and the external CSR (El Akremi et al., 2018; Brammer et al., 2007; Werther & Chandler, 2010). In connection with the social exchange theory, we aimed to investigate whether internal CSR programs contribute more individually to the social exchange process compared to external one. Since internal CSR programs directly benefit the employees whereas external CSR initiatives generally engaged toward other stakeholders such as natural environment, investors, customers, local community and government (El Akremi et al., 2018); investigating the simultaneous impact of employees' perceptions of both internal and external CSR on the behavioral outcomes of employees becomes more important (Erdogan et al., 2015).

Consequently based on social exchange theory arguments, the main aim of the paper is to contribute to the accumulation of new insight on the CSR literature by investigating the link between

internal and external CSR practices and organizational commitment (OC). As the most of the CSR research focuses on developed countries and several scholars have called for more CSR research on developing countries (Aguinis & Glavas, 2012; Jones et al. 2014; Rupp et al. 2013), this study aim to shed light on the direct impact of internal and external CSR activities individually and in combination on employees' OC in an emerging market, specifically. Consequently, our research is conducted in Turkey relying on self- reported data from a small sample of employees.

Our investigation is based on the analysis of the direct connections between perceived internal and external CSR practices on OC. This study contributes to the extent literature by empirically exploring the impacts of CSR on OC from both employee and external stakeholders perspectives and by enlarging the current understanding on how various CSR initiatives affect OC, which is strong predictor of employee turnover (Catano & Morrow Hines, 2016; Farooq et al. 2019). The study of CSR in developing and emerging countries is a relatively under- researched area and these research questions, to the best of our knowledge, have been empirically surveyed in Turkey by very limited number of studies to date (Boğan & Dedeoğlu, 2019; Gürlek & Tuna, 2019; Turker, 2009a). This study aimed to tackle one of the key issues, which is to comprehend the utilization of CSR in different cultural context (Thang & Fassin, 2017). Inter countries comparative research on CSR has started to accumulated exponentially (Aguilera et al. 2007; Habisch et al. 2004; Maignon & Ralston, 2002; Matten & Moon, 2008) yet; studies are largely conducted in developed countries context and generally in USA and Western Europe. As the employees' attitudes towards and expectations from CSR are likely to be influenced by the values of the society, we can argue that the responses from developed and developing countries with respect to the CSR would be different (Chapple & Moon, 2005). We also aim to contribute to the existing literature by analyzing both individual and combined impact of internal and external CSR activities instead of focusing only on the impact of internal CSR practices on employee behaviors or employee level outcomes (Brammer et al. 2007; Turker, 2009a). The combined effects of both internal and external CSR activities on different employee attitudes and behaviors were relatively limited.

## **CONCEPTUAL BACKGROUND AND HYPOTHESIS**

### **Internal and External CSR in Turkey**

Research aiming on the organizational and individual level outcomes of CSR is relatively recent and scarce in Turkey. There is a very recent proliferation of studies exploring the impact of CSR initiatives on employees' commitment (Boğan & Dedeoğlu, 2019; Gürlek & Tuna, 2019; Turker, 2009a), on customer perceptions and behavior (Gürlek et al. 2017; Tascioglu et al., 2019; Engizek & Yasin, 2017), on firm value (Ural et al., 2019) and financial performance (Akben-Selcuk, 2019; Sila, 2018). It is

concluded that the companies in Turkey mainly carry out their social responsibility activities to gain legitimacy (Ozdora-Aksak, 2015) and to their corporate image or employee satisfaction (Gülsoy & Ustabaş, 2019). These studies were generally focused on CSR activities in general and didn't attempt to differentiate the impact of internal versus external CSR. In this regard, Ertuna, Karatas-Ozkan and Yamak (2019) found that international and family business group affiliated companies operating in Turkey were implementing CSR and sustainability practices largely in compliance with the headquarters strategy; however, these activities have been also adapted to Turkish context in order to be able to respond to some needs of external stakeholders to gain the legitimacy of the local community. They also reported that the owners' managers were more inclined to focus on external stakeholders of the firm whereas professional managers tend to invest more on internal CSR activities (Yamak et al. 2019). Küskü-Akdoğan and Bay (2012) found that firms in Turkey mainly agreed to the implementation of philanthropic activities on a voluntary basis. However, they stated that their philanthropic activities are not based on purely altruistic motivation and that firms also aim to gain benefit from these by public disclosure of this information in the mass media (Küskü-Akdoğan & Bay, 2012). On the other hand, it is stated that there is also some concerns about complying with the laws and sector regulations (Küskü, Zarkada & Fraser, 2004; Küskü & Aydın, 2006; Küskü, 2007). Accordingly, Küskü (2007) argued that companies carry out their environmental responsibility activities with the pressures arising from legal obligations rather than voluntary initiatives based on their own initiatives (Küskü, 2007).

### **Individual and Combined Impacts of Internal and External CSR on Organizational Commitment**

Current research focus on determining how CSR activities impact different stakeholders such as employees, consumers, investors, suppliers, and the government (Aguinis & Glavas, 2012) as firms started to invest extensively on them and implementing these initiatives to sustain their competitive advantages (Scherer & Palazzo, 2011). A firm's social responsibility initiatives and actions can be distinguished between internal and external CSR, which are directed at internal and external stakeholders, respectively (De Roeck & Maon, 2018; El Akremi et al., 2018; Hameed et al. 2016; Werther & Chandler, 2010).

Internal CSR focus on the internal stakeholder of firms, employees, and represents the strategies and practices of a firm that are related to its employees' physiological and psychological well being (Shen & Zhu, 2011; Brammer et al. 2007; Turker, 2009a,b; Verdeyen et al. 2004). These include concern for employees' health and safety, respect for human needs and rights, a positive working conditions and culture, considerations for work-life balance, opportunities for employee training and empowerment, encouragement for employee involvement and diversity and equality (Gond et al. 2017; Mory et al. 2016; Shen & Zhu, 2011; Turker, 2009a). These initiatives indicate the organizational

sensitivity to employee needs and initiate positive emotions and behavioral responses (Aguilera et al. 2007). Thus, companies' active involvement in CSR activities also increases employees' OC (Brammer et al. 2007; Lee & Bruvold, 2003; Meyer et al. 2002).

Blau's (1964) social exchange theory claims that all relationships in a social context are based on the various and continuous exchange between individuals. People are more inclined to establish a balance in these exchanges in terms of what they are giving to others and what they are receiving in return. The reciprocity is crucial in social exchanges and relationships (Takeuchi et al. 2009). Firms initiate social exchange when they offer them several economic and socio-emotional resources by engaging in internal CSR activities (Gould-Williams, 2007). Organizations aim to signal and show that they are sensible to their employees' needs, caring, benevolent and values employees since such positive social exchange and engagement is the key for the creation of strong and productive reciprocal relationships between the organization and employees (Farooq et al. 2017). It is expected that when employees directly benefit from employee oriented CSR activities, they will develop a stronger identification with and attachment to their organization and be more inclined to reciprocate by displaying behaviors such as organizational commitment (Ahearne et al. 2005; Bergami & Bagozzi, 2000; Kim et al. 2010; Paswan et al. 2005; Sen & Bhattacharya, 2001), which can be defined as "*the employee's psychological attachment to the organization*" (Meyer & Allen 1991; Meyer et al. 2002). Several studies found that organizations CSR activities focusing on employees' well being affect positively employees' OC (Aguinis & Glavas, 2012; Al-bdour et al. 2010; ALshbiel & AL-Awawdeh, 2011; Brammer et al. 2007; Lee & Bruvold, 2003; Lee et al. 2018; Meyer et al. 2002). Altogether, the above considerations lead to the following hypotheses:

*H1. Perceived internal CSR is positively related with employee's organizational commitment behavior.*

External CSR conveys to the social and environmental activities that support to reinforce the firm's reputation and legitimacy to build sustainable relationships with the firm's external stakeholders (Brammer et al. 2007; Carroll, 1979; Waddock & Smith, 2000). External CSR activities generally include volunteerism, social philanthropic activities, customer oriented marketing and environmental protection (Brammer et al. 2007; Chen et al. 2008; Cornelius et al. 2008; Farooq et al. 2017). Past research suggests that employees are more inclined to view and interpret external CSR efforts of their organizations as signs of a prosocial and cooperative organizational culture (Greening & Turban, 2000). Current as well as the prospective employees of a firm have been found to care about the external CSR efforts and respond them positively since they want to work for a reputable and respected employer and to be proud to associate with organizations that are admired by others (De Roeck et al. 2014; Jones et al. 2014). Even though external CSR directly target the firm's current employees and they are not direct beneficiaries of them, research suggests that such practices can

provide significant intangible benefits to employees; they will be more inclined to engage in OC (Newman et al. 2015). In light of the arguments above, we reason that employee perceptions of external CSR efforts will positively influence their organizational commitment. Thus:

*H2. Perceived external CSR is positively related with employee's organizational commitment behavior.*

Micro-CSR studies have emphasized that not every type of CSR activities necessarily influences employees same way and magnitude and there are differences on the impact of internal and external CSR activities on OC (Rodrigo et al. 2019). While there are more studies that empirically examine the association between overall CSR and organizational commitment (e.g. Brammer et al. 2007; Hofman & Newman, 2014; Mueller et al. 2012; Rego et al. 2010;), they fail to understand which CSR initiatives, internal or external, more important for the employee's OC. We argue that employee related CSR activities are more important than the external one however they contribute positively on the link between internal CSR and OC.

*H3. When supported with external CSR, the positive relationship between perceived internal CSR and employee's OC behavior would be stronger.*

## **METHODOLOGY**

### **Data collection and sample**

This paper used a questionnaire-based survey to collect data in Istanbul, Turkey. Participants are graduate students of Galatasaray University MBA programs. To be included in the survey, participants had to be currently working and have at least one year of full-time work experience. A total of 167 responses were used to test our hypothesis.

### **Measurements**

Employees' perceptions of external and internal CSR activities were measured by 10 and 12 items, respectively, using scales developed by Turker (2009b) and Shen & Zhu (2011). To measure internal CSR activities, we used three-component scale of Shen and Zhu (2011) which consist a legal compliance HRM dimension (to measure working hours; performance appraisal and reward and compensation; minimum wage; the equality in recruitment and selection, training and development; the compliance with labor laws regarding health and safety; no use of child or forced labor and appointing adequate employees to monitor labor standards in the global value chain); a employee-oriented HRM dimension (to measure adequate training and development opportunities; flexible working hours and employment programmers for achieving work-life balance; employee involvement and participation; workers' organizations participating in determining labor terms) and finally a general CSR facilitation HRM dimension (to measure appraising and rewarding employees'

contribution to CSR; appointing CSR staff; giving priority of employment to candidates who have family difficulties or made redundant, to local candidates in order to contribute to the sustainability of local economies and societies). The scale developed by Turker (2009b) was used to measure external CSR. 17 items and measures of this scale consisting CSR to social and non-social stakeholders (measuring investment for future generations; social programs; protection of natural environment; campaigns and projects for the well being of the society; support for NGOs), CSR to customers (measuring provision of full and accurate information about its products to its customers; protection of consumer rights beyond the legal requirements;) and CSR to government (measuring compliance with the legal regulations completely and promptly; payment of taxes on a regular and continuing basis) was used. Both scales are rated on a five-point Likert scale ranging from “strongly agree” to “strongly disagree”.

Organizational commitment is operationalized as “*the employee’s attachment to the organization*” (Allen & Meyer, 1990; Meyer et al. 2002), and it was measured using Meyer and Allen’s (1997) 17-item scale, which was adapted to Turkish and tested by Wasti (2000). We utilize this scale as past research has suggested its high reliability and validity for Turkey.

A reliability analysis was conducted to test the reliability of the scales. Cronbach’s alpha value for OC, internal CSR and external CSR measures were respectively 0.861; 0.776 and 0.902 for the scales. These values well exceed the minimum value of 0.70. Thus, it can be concluded that the measures have an acceptable level of reliability.

Although the previous studies found weak and inconsistent associations between demographic variables and OC (Turker, 2009a), information on participants’ work-related and demographic characteristics were further collected. The demographic information includes age and gender while work-related information includes participants’ current job position, his/her tenure in the current company and total job tenure as well as their job satisfaction level, which was measured by 20 items with Cronbach’s alpha value of 0.941.

### **Statistical analyses**

A descriptive statistical analysis performed to define participants’ work-related work-related and demographic characteristics. The impacts of the internal and external CSR on organizational commitment both individually (H1 and H2) and in combination (H3) were tested by a regression analysis.

## **RESULTS**

### **Characteristics of the participants**

55 percent of participants were female and they are young professionals. 76 percent of the

participants are younger than 30 years old. Most participants were non-managerial employees (65,9 %) in large companies (73,1 %). Regarding the tenure of the participants, on average participants had worked as a full-time employee for 42 months; they had been working for 30 months at their current company. They are generally working on service sectors (64,7 %).

### **The impacts of perceived corporate social responsibility on OC**

Table I summarizes descriptive statistics and result of the correlation analysis. According to Table 2, internal and external CSR are highly correlated with the OC in the sample. Also, internal CSR has shown considerable level of correlation with external CSR. High correlations can indicate multicollinearity problems but variance inflation factor (VIF) values are below 3 and this shows that multicollinearity is not a concern (Hair et al. 2010).

Table II provides the results of regression analysis with employee's organizational commitment level as the dependent variable. Model 1 has tested all of the control variables and only employee's job satisfaction level (Model 1:  $\beta = 0.606$ ,  $p < 0.01$ ) and firm size (Model 1:  $\beta = -0.194$ ,  $p < 0.01$ ) have shown significant relationships with the dependent variable. These results indicate job satisfaction level of employee has a positive effect on their organizational commitment level. The negative association between firms' size and organizational commitment suggest that employees feel less committed to their organization in larger firms.

H1 suggests a positive relationship between employees' perceptions on internal CSR activities and their organizational commitment level. The coefficient of the internal CSR is positive and significant (Model 2:  $\beta = 0.255$ ,  $p < 0.01$ ) which supports H1.

H2 proposes that perceived external CSR is positively related with employee's organizational commitment. The association between external CSR and organizational commitment is also positive and significant (Model 3:  $\beta = 0.206$ ,  $p < 0.01$ ). This result provides support for H2. The magnitude of the impact of perceived CSR appear to be different between internal and external CSR showing a greater value of the coefficient of perceived internal CSR than that of the external CSR. It is also worth to note that the adjusted R square for models is around 0.40, which is high for studies in this research area.

H3 has proposed that when supported with external CSR, the positive relationship between perceived internal CSR and employee's organizational commitment behavior will stronger. The results show a positive and significant (Model 4:  $\beta = 0.258$ ,  $p < 0.05$ ) association between overall CSR activities and organizational commitment thus H3 gains support. The combination of both internal and external CSR explains 25,8 percent of variances in employees' organizational commitment level.

**TABLE I Descriptive Statistics and Correlations**

|                           | Mean   | S.D.   | 1       | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9    | 10   | 11 |
|---------------------------|--------|--------|---------|-------|-------|-------|-------|-------|-------|-------|------|------|----|
| 1- OC                     | 2.997  | .7246  | 1       |       |       |       |       |       |       |       |      |      |    |
| 2- Internal CSR           | 3.6878 | .6709  | .440**  | 1     |       |       |       |       |       |       |      |      |    |
| 3- External CSR           | 3.7331 | .7511  | .476**  | .747* | 1     |       |       |       |       |       |      |      |    |
| 4- Age                    | 1.25   | .475   | .121    | -.007 | .133  | 1     |       |       |       |       |      |      |    |
| 5- Gender                 | .54    | .499   | -.012   | .154* | .072  | .003  | 1     |       |       |       |      |      |    |
| 6- Job Position           | 0.3373 | .4742  | .110    | .047  | .210* | .345* | -.095 | 1     |       |       |      |      |    |
| 7- Job Satisfaction       | 3.3890 | .8113  | .623**  | .503* | .593* | .120  | .018  | .125  | 1     |       |      |      |    |
| 8- Tenure in current firm | 31.66  | 25.429 | .073    | .026  | .086  | .389* | -.013 | .183* | .089  | 1     |      |      |    |
| 9- Total tenure           | 49.89  | 31.374 | .081    | .027  | .176* | .535* | -.028 | .300* | .133  | .691* | 1    |      |    |
| 10- Firm Size             | 3.53   | .883   | -.210** | .213* | .110  | .038  | .075  | -.039 | -.028 | .080  | .068 | 1    |    |
| 11- Sector                | 0.6168 | .4876  | .035    | .043  | .028  | .107  | .022  | -.037 | .004  | -.037 | .015 | .015 | 1  |

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

**TABLE II Impacts of Perceived CSR on Organizational Commitment**

|                             | Model 1            | Model 2            | Model 3            | Model 4            |
|-----------------------------|--------------------|--------------------|--------------------|--------------------|
| Constant                    | 1.609***<br>(.279) | 1.139***<br>(.302) | 1.322***<br>(.296) | 1.167***<br>(.302) |
| Age                         | .052<br>(.113)     | .079<br>(.110)     | .061<br>(.111)     | .072<br>(.110)     |
| Gender                      | -.014<br>(.088)    | -.046<br>(.086)    | -.026<br>(.087)    | -.038<br>(.086)    |
| Job Position                | .016<br>(.100)     | .006<br>(.097)     | -.012<br>(.100)    | -.010<br>(.098)    |
| Job Satisfaction            | .606***<br>(.055)  | .474***<br>(.062)  | .486***<br>(.067)  | .453***<br>(.066)  |
| Tenure in current firm      | .060<br>(.002)     | .055<br>(.002)     | .071<br>(.002)     | .066<br>(.002)     |
| Total tenure                | -.059<br>(.002)    | -.054<br>(.002)    | -.083<br>(.002)    | -.075<br>(.002)    |
| Firm Size                   | -.194***<br>(.050) | -.255***<br>(.050) | -.223***<br>(.050) | -.244***<br>(.050) |
| Sector                      | .038<br>(.091)     | .021<br>(.031)     | .028<br>(.089)     | .023<br>(.088)     |
| Internal CSR                |                    | .255***<br>(.078)  |                    |                    |
| External CSR                |                    |                    | .206***<br>(.076)  |                    |
| CSR (Internal and External) |                    |                    |                    | .258***<br>(.084)  |
| Observations                | 166                | 166                | 165                | 165                |
| Adj. R-square               | .394               | .434               | .415               | .430               |
| F                           | 14.401***          | 14.979***          | 13.932***          | 14.756***          |
| Durbin-Watson               | 1.926              | 1.855              | 1.949              | 1.912              |

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Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## CONCLUSION AND DISCUSSION

Firms start engaging in CSR activities in recent years, as they have been recognized as important aspects affecting organizational outcomes. Yet, many firms still do not consider CSR as significant initiatives that need to be employed to guarantee employees motivation, engagement and commitment. Further, the employees' attitudes and opinion towards the unpretentious and straightforward engagement for and implementations of CSR initiatives was very questionable owing to the some historical trust issues. This paper aimed to understand the role of the company's CSR activities and practices in its individual- level outcomes such as employees' organizational commitment from employees' perspective in Turkey. As recent evidence distinguishes between "internal" and "external" CSR, depending if they address socio-environmental concerns of different stakeholders such as employees, customers, stakeholders, government and society. This study had taken into consideration the possible divergent effects on of both internal and external CSR on workers' perceptions and consequently on their organizational commitment.

In summary, the present study examined the impacts of employees' perceptions regarding two of the CSR dimensions (internal and external CSR) separately on employees' OC. Further, the study examined the contributinal role of external CSR on the link between perceived internal CSR on employees' OC. The findings support all proposed hypotheses. Positive impacts of employees' perceptions of customer, government, environment and employee related CSR practices on OC are consistent with the previous research findings. The current study contribute to the previous literature by investigating the impacts of both internal and external CSR initiatives related to the primary stakeholders in an emerging market context. This analysis also shows that when employees perceive that their firm also cares for external stakeholders and invests in external CSR activities, the positive impact of employees' perceived internal CSR in other words employee-related CSR on OC becomes stronger.

Nevertheless, the present paper also suffers some limitations. Future research can include other dimensions of CSR programs and evaluate the undertaken variables to enhance the generalizability in larger samples. Different firms have their featured organizational climate, values as wel as employee profiles. Subsequently incorporating more organizational and individual level variables related to their characteristics can allow future research to improve the generalizability of the results of the present study.

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## SERVITIZATION AND PERFORMANCE. EVIDENCE FROM EMPIRICAL WORKS

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### ABSTRACT

The phenomenon of servitization consists of the provision of services by manufacturing firms and it is one of the most important trend of the modern economy. Numerous works deal with servitization and many issues of the phenomenon are still open such as its impact on firms' performance. In fact existing studies about the relationship between servitization and performance evidence different results. By systematizing literature about the outcomes of servitization, the work brings to light several factors that the empirical studies show to influence the performance of servitized firms such as the organizational aspects, the firm's resources, the service portfolio and the external factors. The analysis of the factors is carried out by comparing the findings coming from the empirical works and it allows to identify strategic guidance that can make the investment less opaque and can reduce the uncertainty of the result of the strategy.

*Keywords: servitization, product-service systems, services, industrial services, manufacturing strategies, performance.*

### INTRODUCTION

The growth of services is a general phenomenon in the world economy (Buckley and Majumdar, 2018) and their provision by manufacturing firms has become a well-established trend in the last decades (Visnjic et al., 2018). Empirical studies evidence that today in many industries a significant number of manufacturing firms provide services that are attached to the product (Neely, 2008; Lay et al., 2010; Huxtable and Schaefer, 2016; Crozet and Milet, 2017). The shift from selling a product to the provision of a product service systems (PSS) is called servitization (Vandemerwe and Rada, 1988; Neely, 2008; Baines et al., 2009) and it consists of "the transition in business model from products to PSS, where product and services are bundled to generate higher use-value, pricing is based on value and capabilities support customer-dominant orientation" (Kohtamaki et al., 2018). Servitization is a new competitive strategy adopted by manufacturing firms (Baines and Lightfoot, 2013; Lee et al., 2016) that move downstream along the supply chain performing new activities (Wise and Baumgartner, 1999; Baines and Lightfoot, 2013; Rabetino and Kohtamaki, 2018).

Manufacturing firms are pushed to implement the servitization to catch new profits in the service market (Wise and Baumgartner, 1999; Kowalkowski et al., 2017a), to build a competitive advantage (Vandermerwe and Rada, 1988; Cusumano et al., 2015; Baines et al., 2017) and to answer to the more demanding requirements of customers (Oliva and Kallenberg, 2003; Baines et al., 2009).

The servitization entails the turn of the manufacturing firms' business model into a service-oriented one that is focused on the value in use that the customer can obtain (Pawar et al., 2009; Baines and Lightfoot, 2013). While the manufacturing firm turns into a capability provider, the main interest of the customer is now the continuity of the asset's availability and the provision of a wide array of services over the time rather than the ownership of the product (Baines and Lightfoot, 2013). The customer accesses to a bundle of product and services by paying according to the usage of the asset or to the achievement of an agreed performance (Pawar et al., 2009; Baines and Lightfoot, 2013; Visnjic et al., 2018). Furthermore, customers participate in the co-creation of the value by delivering inputs and feedbacks in order to obtain a tailored solution (Baines et al., 2009). As a consequence, the manufacturing firm is involved in long term relationships with the customers (Oliva and Kallenberg, 2003; Brax and Visintin, 2017).

Servitization brings about profound changes that make the transition hard to carry out (Martinez et al., 2010) and the real contribution of the strategy to enhance the firm's performance is still an open issue (Wang et al., 2018).

Due to the relevance of the issue [this paper aims to conduct an analysis of that part of the literature that is focused on the performance of the servitized firms in order to systematize common findings coming from the empirical works.](#)

The paper is organized as follows. Section 2 conducts a brief review of servitization literature with a focus on the main managerial issues. Section 3 presents the works about the impact of servitization on firms' performance. Thus, Section 4 presents the two main correlation models illustrating the relationship between performance and servitization. Finally, Section 5 focuses on the role of contingency factors that intervene on the relationship. Concluding remarks follow in Section 7.

## LITERATURE REVIEW AND MAIN MANAGERIAL ISSUES

Although it is not a recent phenomenon (Schmenner, 2009; Baines and Lightfoot, 2013), scholars actually start to deal with it only from the last decades with the important works of Vandermerwe and Rada (1988), that coin the term servitization, and Goedkoop et al. (1999) that define the concept of the PSS.

Since the beginning servitization is faced by different research communities coming from several disciplines such as marketing, operations, services, management, engineering and innovation

(Kowalkowski et al., 2017a). Literature is very heterogeneous (Augurio et al., 2018) and several managerial issues and concepts are still debated.

A first issue is the classification of the servitized business models. It can be observed that the archetypical classification of Tukker (2004) that identifies three main groups of PSSs is quite consolidate though it could be not capable of catching all the real cases (Van Ostaeyen et al., 2013).

Strictly related to the business model issue is the classification of the industrial services. The existing classifications focus mainly on the value proposition of services and the product-service interaction. By focusing on the value proposition, Mathieu (2001) distinguishes the services supporting the supplier's product (SSP), that aim at guaranteeing the functioning of the product and the accessing of the customer to the asset, from the services supporting the customers' action (SSC) that support the action of the client and are high-customized. Going to the concept of product-service interaction, this expresses the link between products and services that are provided by the manufacturing firm. Services are considered as more related to the product core business when their provision requires the same capabilities that are employed to make the products. The interaction has been also evaluated by looking at the cash flow generated by services. The cash flow of services can be either contextual or not simultaneous to the cash flow of the product (Benedettini et al., 2017).

Another important issue is the service transition that has been conceptualized by some scholars as a forward and unidirectional process that can be carried out either by a stepwise process (Vandermerwe and Rada, 1988; Oliva and Kallenberg, 2003) or by adding gradually services (Baines and Lightfoot, 2013; Brax and Visintin, 2017; Benedettini and Neely, 2018). However, other works question the idea of a linear and unidirectional transition that can be subjected to revisions and modifications (Kowalkowski et al., 2012). Firms can implement more strategies at the same time (Kowalkowski et al., 2015) and they can also reduce or even leave the provision of services moving back to a more product oriented offering by carrying out processes of service dilution or deservitization (Kowalkowski et al., 2017b; Valtakoski, 2017).

Finally, another important open issue is the financial impact of the servitization, which is the main object of this work. The next paragraphs will face this important issue.

## **THE ANALYSIS OF THE PERFORMANCE**

As highlighted in Section 2, scholars do not give a definitive response about the outcomes of servitization. In fact some studies evidence that servitization improves the firms' performance (Homburg et al., 2002; Gebauer et al., 2010, Visnjic Kastalli and Van Looy, 2013, Crozet and Milet, 2017; Lin et al., 2018) while others bring to light that firms struggle to gain the expected gains (Gebauer et al., 2005; Neely, 2008, Min et al., 2015) falling into the "service paradox" (Gebauer et al.,

2005). Neely (2008) and Benedettini et al. (2015) show even a higher rate of bankruptcy of servitized firms compared to pure manufacturing ones.

From literature, it emerges that servitization actually allows firms to grow in revenue and in value (Fang et al., 2008; Kohtamaki et al., 2013b; Min et al., 2015; Bohm et al., 2017) but the profitability is more uncertain. In some cases, the profitability ratios could have declining rates (Neely, 2008; Min et al., 2015) or could not change at all (Augurio, 2019). In particular, the profitability of sales and assets seems to decline during the service transition.

Due to this heterogeneity of results the studies about the outcomes of servitization are deemed as “inconsistent” (Wang et al., 2018) or “inconclusive” (Visnjic Kastalli and Van Looy, 2013).

The different results can be explained by several reasons.

First, results depend on the different ways to measure both servitization and performance. Due to the difficulty to obtain the share of revenue coming from services (Gebauer et al., 2012), scholars generally measure the servitization on the basis of primary data that bring to light the strategic service orientation degree of the organization (Homburg et al., 2002; 2003) or the emphasis put on services by firms (Kohtamaki and Partanen, 2016). At the same time, scholars use another approach based on the count of the number of services that are provided by firms as it emerges by the analysis of their business description (Neely, 2008; Benedettini et al., 2017). Going to the performance, it is measured in term of revenue/sales (Neely, 2008; Eggert et al., 2014; Kohtamaki and Partanen, 2016; Bohm et al., 2017), firm’s value (Fang et al., 2008; Min et al., 2015) and profitability. The most common profitability ratios are the return on sales (Gebauer et al., 2010; Suarez et al., 2013, Kwak and Kim, 2016; Souza Junior et al., 2018), the EBITDA on total sales (Ambroise et al., 2018) and the net profit on total sales (Neely, 2008). Finally, the impact of the servitization is also evaluated by looking at the risk of the strategy that is measured as the number of bankrupt servitized firms (Benedettini et al., 2015).

Second, quantitative studies evidence that service strategies contribute to boost the firms’ performance only if the servitization degree meets a certain level. The relationship between the intensity of servitization and the performance is not linear (Fang et al., 2008; Cusumano, 2008; Kohtamaki et al., 2013b; Suarez et al., 2013; Visnjic Kastalli and Van Looy, 2013).

Third, many internal and external factors intervene on the relationship between servitization and performance, and each work analyzes only some of them (Zomer et al., 2017).

The next two sections will analyze in-depth the models of correlation and the contingency factors in order to systematize those aspects that influence the outcome of servitization as it evidenced by scholars in their works.

## MODELS OF CORRELATION

As told before, several works evidence that the relationship between servitization and performance does not appear linear (Fang et al., 2008; Cusumano, 2008; Kohtamaki et al., 2013b; Suarez et al., 2013; Visnjic Kastalli and Van Looy, 2013).

It is possible to identify two main models. One of them evidences a U-shaped correlation between servitization and performance suggesting the idea of a strategy that needs time to pay-off because it requires a period of settlement. In the beginning the performance could be negative for low level of servitization, starting to increase only when an inflection point is overcome and the initial investment starts to pay-off (Fang et al., 2008; Kohtamaki et al., 2013b; Suarez et al., 2013).

Fang et al. (2008) observe that only when the service sales account for the 20-30% of the total revenue there is an increase in firm value. Servitization suffers the consequences of the initial organizational changes such as the conflicts within the organization and the switch of resources from the product business to the service business where firms lack of experience and the likelihood of failure is not low. As the servitization advances, the experience should help firms better manage the new business and adapt the organization.

Kohtamaki et al. (2013b) evidence an increase in the sale growth for those firms whose offering is strongly focused on services. According to this vision servitization worth to be carried out when manufacturing firms increase the offering of more advanced and high customized solutions of services. Suarez et al. (2013) state that in the software industry servitization pays off only if the manufacturing firms carry out a remarkable transition as the inflection point is achieved when the share of services account for the 56% of the total sales. The service business needs to be relevant in order to increase the profitability.

Instead, Kwak and Kim (2016) evidence an inverted U-shape relationship in case of SMSs. SMSs benefit from servitization only for low level of servitization because further expansions deteriorate the profitability due to the rise of the political and transaction costs and the loss of opportunities of investment in the product business because of the switch of resources to the service extension.

Other models bring to light more complex relationships. According to Cusumano (2008) servitized firms in the software industry increase their performance only if services account for less than 20% of the revenues or more of the 60%. Low level of servitization means the provision of basic services as the maintenance. After that, further expansions of the service business deteriorate the performance because new and more complex services such as the strategic consulting and training begin to be provided. When services exceed the 60% of the revenues, manufacturing firms can exploit the economies of scale and the experience to provide services more efficiently and thus the performance improves again.

Instead Visnjic Kastalli and Van Looy (2013) evidence a positive S-shaped correlation. In the beginning the servitization is less costly because it is based on basic services such as spare-part activities. However, when servitization advances firms have to augment the investments in the services business and the profitability slows down. The advantages of the economies of scale and scope and the learning effects can be exploited only for high level of servitization.

## CONTINGENCY FACTORS

Many works have been focusing on the role of contingency factors that intervene on the relationship between servitization and performance.

From the analysis of literature, the contingency factors can be grouped in four categories. Three refers to internal factors such as the organizational aspects, the firm's resources, the service portfolio while only one concerns the external factors.

### *Organizational aspects*

Several organizational factors are explored in literature. One of them is the degree of the service orientation of firms that is conceived as a critical factor both at the individual and the organizational level. The performance of servitized firms is enhanced by the development of new set of values and behaviors among those individuals who are involved during the service transition such as the management and the employees (Homburg et al., 2002, 2003; Gebauer et al., 2010; Kohtamaki et al., 2015). The management commitment during the service transition is recognized to influence positively the firms' performance (Gebauer and Fleisch, 2007, Antioco et al., 2008; Zghidi and Zaiem, 2017). Same importance is given to the human resource that is in charge to provide services. The activities of customer treatment (Antioco et al., 2008) and demand-side search (Zhao et al., 2017) are necessary to guarantee a better service provision and to meet the customer satisfactions. The key role of the human resource has pushed scholars to investigate the influence of human resource management practices such as training, recruitment, assessment and compensation that are capable of influencing positively the relationship between servitization and performance (Homburg et al., 2003; Antioco et al., 2008; Kohtamaki et al., 2015; Zhao et al., 2017). These practices by improving the service provision enhance the quality of the customer relationship and thus the profitability (Homburg et al., 2003).

On the contrary, the impact of the choice concerning the organizational structure is less investigated by scholars. Gebauer et al. (2010) state that the separation of the service business from the product business does not seem to have any impact on the performance. On the contrary Oliva et al. (2012) evidence a positive mediating effect of the separation on the relationship between managerial commitment and firms' financial performance.

Finally, the firm's size investigated by Neely (2008) intervenes on the relationship between servitization and performance as well. In particular, servitized firms with more than 3,000 employees experiment a reduction in profitability due to the higher costs of the human resource. On the contrary, under that number of employees, firms easily succeed in improving their performance.

#### *Firm's resources*

As told the service transition is not easy and its success depends on a solid initial financial condition (Fang et al., 2008). However firms with unhealthy conditions can benefit from the existence of strong relationships with suppliers to collect resources (Bohm et al., 2017). In fact the development of specific network capabilities to manage interfirm relationships enhances the relationship between servitization and sales growth because firms can access to various resources easier (Kohtamaki et al., 2013b).

As a customer centric business model, the role of the customer relationship management on the performance has also been investigated. The relational capital, that is embedded in the relationship between the servitized firm and its own customers and it is based on trust, respect, and friendship, moderates the relationship between the provision of R&D services and profit (Kohtamaki et al., 2013a). Instead the relationship between the provision of knowledge-intensive business services and sales is enhanced by the activation of learning process and sharing of information between firms and customers (Kohtamaki and Partanen, 2016).

#### *Service portfolio*

The outcomes of servitization are strictly linked to the composition of the service portfolio. This last is analyzed by looking at the number of the provided services and the degree of completeness of the provision that can be extended from basic services to complex solutions passing through intermediate services. Scholars evidence that the increase of the breadth reduces the profitability while the increase in completeness allows to reach a better performance by allowing the exploitation of higher margins and a superior market value (Visnjic et al., 2012). Kwak and Kim (2016) evidence that the most profitable services are those that provide specific solutions to meet the customer needs such as process operation, outsourcing and technical consulting.

Other works focus mainly on the typology of services by adopting the Mathieu's classification (2001). Antioco et al. (2008) state that SSPs boost the service volume while SSCs can only improve the relative product sales. Furthermore, SSPs and SSCs seem to affect revenue and profit in different ways. SSCs directly influence both revenue and profit while SSPs act only indirectly (Eggert et al., 2014). Furthermore, SSPs and SSCs influence positively the long-term performance according to the degree of product R&D. The formers increase the firm's long-term profitability in case of high intensity of R&D activities. On the contrary, SSCs have a positive effect on the firm's long-term profitability with low level of innovation (Eggert et al., 2011).

The service business has been also investigated by looking at the proximity of the service business with the product business. According to Fang et al. (2008) closer the service business to the product business stronger the relationship between servitization and performance. Other works evidence that the proximity influences also the idiosyncratic risk of listed firms as well as the general exposure to bankruptcy. In the first case, firms that add services that are close to the product business can avoid the negative effect on the firm risk that comes from the decision of implementing servitization (Josephson et al., 2016). In the second case, servitized firms tend to be more exposed bankruptcy when the provision is based on services that need to be sold with the product such as retailing, distribution, and financial services (Benedettini et al., 2015).

#### *External factors*

The relationship between servitization and performance is also affected by business sector's specific features (Zghidi and Zaiem; 2017). Fang et al. (2008) prove that the industrial turbulence moderates those relationship. The outcomes of the servitization are also influenced by the level of the development of the countries. In developing countries manufacturing firms that add services first gain high profits (Moreno et al., 2020).

## **CONCLUSIONS**

Some focal keys can be drawn from the conducted activity of literature review.

It is rather difficult to foresee predetermined results in front of such complexity due to the heterogeneity of measurements, contingencies, and chosen industries. Furthermore, the performance of the servitization is strictly linked to the intensity of the process. However, general guidance can be drawn from the empirical works.

First, the development of service orientation is confirmed in several studies as one of the key elements for profitability. Its implementation requires huge investments to revise the structure that need time to be recovered. In fact firms often find the main difficulties right after the adoption of servitization or during the phase of further expansions of the service business. In case of great organizational changes servitization needs time to pay-off and the management should monitor especially the cost of the human resource.

Second, the profitability depends also on the service offering. Some services are more distant from the product business and their provision forces firms to develop new skills and competences and thus further investments. On the contrary, other services can be provided by using the existing competences and structures without additional investments. In this way a quicker return on investment is possible. Regarding the profitability of service categories, works evidence that advanced services based on strong and intense customer relationships can guarantee higher margins and the

price models can smooth the cash flow over the time. On the contrary, basic services tend to act as a strategic support of sales.

Third, the management of the network is considered a strategic capability to access to new resources and thus to increase performance (Bohm et al., 2017; Kohtamaki et al., 2013b). Same for the customer relationship that need to be nurtured on trust and a continuous information sharing (Kohtamaki et al., 2013a; Kohtamaki and Partanen, 2016). Firms that create strong relationships with other actors easier achieve a superior performance.

Fourth, the performance is related to the external contest that is not much studied yet and thus no guidance can be drawn at the moment. This factor need to be more investigated.

Considering the situation of high uncertainty of results and the peculiarity of services, managers should carry out an initial analysis of the adopted strategy in order to better plan servitization. The analysis could start from the identification of the specific features of the firm's strategy per each of the proposed four clusters of guidance. In this way, a sort of strategic dashboard can be used as a further instruments to reduce the uncertainty of the performance, make the picture of the investment less opaque and help the management to better calculate the payback period of the investment.

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## FACTORS DRIVING CUSTOMER KNOWLEDGE SHARING ON ONLINE SOCIAL NETWORK

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### ABSTRACT

Sharing of knowledge among customers can be strategic for businesses, especially if controlled, analysed and conveyed. From this point of view, social media is a powerful tool both for sharing knowledge among customers, but also for businesses. Moreover, there seems to be a lack of studies regarding the factors influencing the willingness of customers to share knowledge about products and services on online social networks. The aim of this paper is to explore the factors driving customers to share knowledge about products and services on social media platforms. As such we provide a quantitative study testing several relationships. We have grouped and tested 2 groups of variables, namely psychological and behavioral, aiming to understand which key factors push the customers to share knowledge about products and services on social media. Overall, the findings suggest that the factors that influence most customers to share knowledge are not those related to behavior in online platforms, but the ones related to psychological traits. This study provides both theoretical and managerial implications.

*Keywords: Knowledge management, customer knowledge sharing, social media, consumer behavior.*

### INTRODUCTION

The current competitive environment has been defined by many as “hyper turbulent”, since it is characterized by increasing uncertainty and growing in the speed of change (Singh et al., 2019).

The prevailing trend in this environment regards the globalization of the markets, in which companies have to face new challenges and dynamics (Del Giudice et al., 2018). In a scenario of “digitalization”, the introduction of new technologies fosters the exchange of ideas and knowledge between customers but also between customers and companies (Santoro et al., 2018).

In this context, the focus of recent research streams has shifted to the centrality of “knowledge” as the main resource for organizations, as the only source of a stable and sustainable competitive advantage since it is harder to imitate (Van Den Hooff, 2004; Scuotto et al., 2017). In particular, the creation and

the intra- and inter-dissemination of knowledge among different organizations are more and more valuable activities for business (Del Giudice et al., 2017).

These studies follow the knowledge-based view (KBV), according to which knowledge is the most strategically important resource for both competition and innovation (Grant, 1996; Kessler, 2003).

Hence, the literature suggests that value is often created through knowledge flows within the company but also with external entities such as suppliers, partners, governments but above all customers (Ardichvili et al., 2003). Against this backdrop, acquiring knowledge from customers allows to improve products, to retain the customer and to build sustainable competitive advantages (Xu & Walton, 2005).

Other studies underline the importance of sharing knowledge among customers, which can encourage the growth of knowledge about a particular product and / or service, brands and new trends (Wu & Sukoco, 2010), thus enhancing the overall value for the business. Therefore, this sharing of knowledge among customers can be strategic for businesses, especially if controlled, analysed and conveyed (Ciampi, 2014). From this point of view, social media is a powerful tool both for sharing knowledge among customers, but also for businesses, which can analyze content shared by users and adapt strategies (e.g. business and functional) accordingly (Neeley & Leonardi, 2018; Papa et al., 2018). In particular, with social media platform, the relationship between customers and retailers has changed significantly. Moreover, social media platforms have provided customers with the opportunity to control what, when, where, and how they will interact with retailer (Lee et al., 2006). Literature recognizes the importance of customer as a source of knowledge (Davenport and Jarvenpaa, 2003; Rowley, 2004) and advocates the increasing value of investigating customer knowledge management for several reasons (e.g. enhancing a company's competitive advantage. Through the comments posted on the social media pages of the brands, consumers continuously exchange experiences, ideas and knowledge about products/services. Given the prominence of this social media platform, customers interaction deserves serious attention of researchers and practitioners. However, only limited research on customer knowledge sharing in social media platforms has been published to date. For example, Wasko & Faraj (2005) have analyzed how individual motivations and social capital influence knowledge contribution in electronic network. In addition, Chan & Li (2010) explored why customers help each other in virtual communities, demonstrating that reciprocity has critical effect on the social media communities. Lee et al. (2006) explored the factor that drive knowledge sharing among customers in web-based discussion board. However, the mentioned studied is qualitative and exploratory in nature. Moreover, there seems to be a lack of studies regarding the factors influencing the willingness of customers to share knowledge about products and services on online social networks. Therefore, this paper aims to explore the factors driving customers to share knowledge

about products and services on social media platforms. As such we provide a quantitative study testing several relationships. We have grouped and tested 2 groups of variables, namely psychological and behavioral, aiming to understand which key factors push the customers to share knowledge about products and services on social media. As a consequence, this paper tries to provide an answer to the following question: *“What are the characteristics and factors that drive customers to share knowledge about products and services?”*

## LITERATURE AND HYPOTHESES

Social media are generally defined as being “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). Social media allow users to interact easily in order to share content, information and knowledge with each-other (Leonardi et al., 2013).

Hence, social media is a tool to bridging people together and facilitating communication (Michaelidou et al., 2011).

Rambe & Nel (2015) have described social media as a range of applications that bring users together in a digital sphere. These include activities such as viewing online videos, live chatting, commenting on other people's content, reading and sending instant messages, creating, searching for and sharing information and knowledge, and playing virtual games (Hajli & Lin, 2016; Rambe & Nel, 2015). In fact, the availability of these powerful platforms allows individuals to create content, unique and identifiable profiles, status updates, publicly articulated online sites, chat rooms and related discussions (Everson et al., 2013; Ellison et al., 2015; Eid & Al-Jabri, 2016). Moreover, social media are tools for knowledge sharing that allow users to create or change content (Chomsky, 2012). As such, knowledge sharing is a process of exchange of knowledge between individuals (Chen & Hung, 2010; Chen et al., 2013). Scholars have defined knowledge sharing as “the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies and procedures” (Wang & Noe, 2010) and as “the communication of knowledge from a source in such a way that it is learned and applied by the recipient”. In this context, social media play an important role, because it facilitates knowledge sharing, and help the diffusion of information among people and society. Thus, social media create a virtual space that supports knowledge sharing activities (Kwahk & Park, 2016).

Social media is an important tool that make possible users to join together freely, who can exchange information and knowledge, express review and comments about services and product in order to ameliorate customers' experiences (Kaplan & Haenlein, 2010; Shang et al., 2011). This sharing of

knowledge among customers can be strategic for businesses, especially if controlled, analysed and conveyed (Lee et al., 2006).

Therefore, customer knowledge sharing about products and services on social media can be seen as the magnitude of knowledge flows about products and services that circulate on social media and online platforms.

Despite these premises, the customer's behaviour in knowledge sharing is unique and therefore difficult to decipher. This because each customer has different reasons for knowledge sharing on social media.

The next section discusses and proposes some reasons and characteristics that lead to knowledge sharing on social media, followed by some research hypotheses.

### *Informational influence*

Social influence has long been recognized as an important force shaping an individual's customer behavior. Two primary types of social influence have been identified in the literature: informational and normative (e.g. Bearden & Etzel, 1982; Bearden et al., 1989, 1990). Informational social influence is "an influence to accept information obtained from another as evidence about reality" (Deutsch & Gerard, 1955, p. 629). In the social media context, the more the people are informed with a certain product/service and tend to accept information obtained online, the more they will share information and knowledge. In other words, the more it is believed that pre-purchase information is important, the more it is believed that sharing knowledge on social media is important and therefore the more the customer will share knowledge on these platforms.

*H1. The willingness to accept information obtained from another positively influences the willingness to share knowledge about products and services in social media.*

### *Perceived usefulness of online reviews*

Perceived usefulness of online reviews (PUOR) has been defined as "the degree to which customers believe that online reviews would facilitate their purchase decision-making process". There is empirical research on the effect of perceived usefulness on usage intention (Davis et al., 1989; Moon & Kim 2001). For example, Moon & Kim (2001) argue that perceived usefulness has a significant effect on the intention to use the Internet. Therefore, we might assume that the more the online reviews are perceived useful, the more the customer will be willing to use social media and share knowledge on them. In fact, a higher usage of social media could be an antecedent of knowledge sharing on social media. In other words, the reason people share knowledge online is that they find them useful. These arguments offer a rationale for the following hypotheses:

*H2: Perceived usefulness of online reviews is positively related to customer knowledge sharing about products and services on social media.*

### ***Usage frequency of online reviews***

Researchers on online customer behavior (e.g., Liao & Cheung 2001) suggests that there is a positive relationship between Internet usage levels and Internet shopping. For example, Liao & Cheung (2001) demonstrated that Singaporeans who use the Internet more often are more willing to make purchases over the Internet. This result can be explained by the uses and gratification theory (Ruggiero, 2000). Hence, literature suggests that customers who use more internet and social media make more purchases online according to the gratification theory. Thus, it is reasonable to infer that those who use more Internet make more purchases online and therefore will be more likely to make online knowledge sharing. Thus, we propose the following hypothesis:

*H3: The usage frequency of online reviews on social media is positively related to sharing knowledge about products and services on social media.*

### ***Helping others***

Customers may receive intrinsic benefits from contributing knowledge. Knowledge is deeply integrated in an individual's personal character and identity (Priyadarshi & Premchandran, 2019). Self-evaluation based on competence and social acceptance is an important source of intrinsic motivation that drives engagement in activities for the sake of the activity itself, rather than for external rewards (Bandura, 1986). Thus, individuals may contribute knowledge in social media because they perceive that helping others with challenging problems is interesting, and because it feels good to help other people (Kollock, 1999). Prior research in social media suggests that individuals are willing to contribute knowledge to others because solving problems is challenging or fun, and because they enjoy helping others (Wasko & Faraj, 2000). The most experienced and passionate customers of certain products and services are more willing to share knowledge and information about those products and services because they want to share their knowledge and experience about products and services. Therefore, we propose the following hypotheses:

*H4: Individuals who enjoy helping others will contribute more to share knowledge about products and services on social media.*

### ***Customer Susceptibility to Interpersonal Influence***

Customer susceptibility is defined as the tendency to learn about products and services by seeking information from others (Bearden *et al.*, 1989). Scholars in customer research have documented the effect of interpersonal influence upon individual decision processes (Cohen & Golden, 1972).

Customers highly susceptible to interpersonal influence have been shown to be more influenced by others when making purchase decisions (Schroeder, 1996). Customer susceptibility can be utilized in the context of social media. An individual with a greater propensity to be influenced by others in social media platform, is likely to share experience and information in social media than an individual who is less susceptible to influence.

Thus, we propose the following hypothesis:

*H5: Customer susceptibility to interpersonal influence is positively related to customer knowledge sharing about products and services on social media.*

### ***Social Bond and Subjective Happiness***

The social bonds that social media members establish with others and the individual enjoyment represent customers' experiences through online interactions. Wikström et al. (2002) suggest that customers need social space in which they can feel close, safe, and happy through social interactions. Social media interactions offer intimate social support (Rheingold, 1993) that facilitates problem solving. Literature suggests that customers who receive social support tend to be grateful and demonstrate reciprocating behaviors to demonstrate their appreciation. Similarly, Wasko & Faraj (2005) show that people with high strong social bonds contribute more to the development of virtual community by helping other members, such as sharing knowledge and information with them. Subjective happiness also affects reciprocating intentions. According to Martocchio & Webster (1992), happiness (which they call playfulness) involves a subjective interaction experience such as pleasure and involvement with the computer. According to Dholakia & Bagozzi (2006) people are more willing to participate in online communities if they have positive emotions of happiness and delight, and the technology acceptance model demonstrates that enjoyment is a critical intrinsic benefit that strengthens users' positive attitudes toward using computer technology (Koufaris, 2002). Moreover, people who experience enjoyment from a network are more likely to contribute resources to that network (Wasko & Faraj, 2005).

In a nutshell, customers who gain resources (the social support and enjoyment) through the experiential route of social media interactions are more likely to reciprocate and share knowledge within the social media community.

*H6. The strength of social bonds that customers establish in the social media community positively influences the willingness to share knowledge about products and services in social media.*

*H7. The extent of individual enjoyment that customers experience in the community positively influences the willingness to share knowledge about products and services in social media.*

### *Reciprocity*

According to Wasko & Faraj (2005) knowledge contribution is facilitated by motivation, structural capital, cognitive capital and relational capital. Relational capital exists also when people trust others within the collective (Putnam, 1995). Members of a community contribute helping other members, even strangers, simply because everyone is part of the collective and all have a collective goal orientation (Leana & Van Buren, 1999). One dimension of relational capital is reciprocity (Wasko & Faraj, 2005). Reciprocity is when individuals usually reciprocate the benefits that receive from others (Shumaker & Brownell, 1984). Prior research indicates that knowledge sharing in social media is facilitated by a strong sense of reciprocity—favors given and received—along with a strong sense of fairness (Wasko & Faraj, 2000). Indeed, people note that if they receive help from others (or draw from the public good), then it would be fair to help others (contribute to the public good) (Wasko & Faraj, 2000). Thus, when there is a strong norm of reciprocity in the collective, individuals trust that their knowledge contribution efforts will be reciprocated, thereby rewarding individual efforts and ensuring ongoing contribution. This leads to the following hypotheses:

*H8: Individuals guided by a norm of reciprocity will be more willing to share knowledge about products and services on social media.*

## **METHODOLOGY**

### *Data, sample and variables*

A quantitative method involving a survey approach to test our research hypotheses and give an answer to the research question was chosen. Data was collected using an online platform in order to reach a wide range of respondents. Before sending the questionnaire, a pre-test was done with a random sample of 10 people who accepted to participate in such a test. Accordingly, the questionnaire was amended to make all the questions clearer. Respondents were informed that the purpose of the research was to “explore customers’ knowledge sharing attitudes on social media”.

Then, the questionnaire was sent via email and through social media to different areas of Italy, which is the context of analysis, in order to find a heterogeneous sample. In total, we received 204 responses from Italian customers between May 2019 and July 2019. The questionnaire was developed in Italian and authors translated the questions taken from the literature. We therefore employed the translation-back translation procedure suggested by Van de Vijver et al. (1997) to ensure consistency.

Respondents were told that their responses would remain anonymous and confidential. All the questions and variables were taken from the literature (Table 1 and Appendix).

**Table 1. Variables**

| Variables                | Explanation   | Role                 | Reference                       |
|--------------------------|---|----------------------|---------------------------------|
| CKS                      | 4 items / 5-point Likert scale  | Dependent variable   | Munar & Jacobsen (2014)         |
| Age                      | Age in years  | Control variable     | Balabanis & Siamagka (2017)     |
| Gender                   | 0 if female; 1 if male  | Control variable     | Balabanis & Siamagka (2017)     |
| Educational background   | 0 if he/she is not graduated; 1 if he/she is graduated or has a doctorate | Control variable     | Balabanis & Siamagka (2017)     |
| Posted online review Y/N | Dummy variable  | Control variable     | Punj, G. N. (2013)              |
| Posted reviews           | Average number of reviews per month                                       | Control variable     | Ridings, Gefen, & Arinze (2006) |
| INFO                     | 4 items / 5-point Likert scale  | Independent variable | Mangleburg et al., (2004)       |
| Helping                  | 3 items / 5-point Likert scale  | Independent variable | Wasko & Faraj (2005)            |
| Reciprocity              | 1 item / 5-point Likert scale   | Independent variable | Wasko & Faraj (2005)            |
| Social Bond              | 3 items / 5-point Likert scale  | Independent variable | Chan & Li (2010)                |
| CSII                     | 3 items / 5-point Likert scale  | Independent variable | Park & Lee (2009)               |
| PUOR                     | 3 items / 5-point Likert scale  | Independent variable | Park & Lee (2009)               |
| UFOR                     | 3 items / 5-point Likert scale  | Independent variable | Park & Lee (2009)               |
| Subjective Happiness     | 3 items / 5-point Likert scale  | Independent variable | Lyubomirsky & Lepper (1999)     |

Finally, we included several control variables, such as respondents' age, gender, educational background, posted online review Y/N and numbers of review per month, which were taken from the literature (Ridings et al., 2006, Punj, 2013, Balabanis & Siamagka, 2017).

### *Preliminary assessments of scales*

The items and variables were assessed for validity via confirmatory factor analysis (CFA) using SPSS software. We ran a CFA using principal component extraction with varimax rotation for the following variables: customer knowledge sharing (*CKS*), informational (*INFO*), helping, social bond (*SB*), customer susceptibility to interpersonal influence (*CSII*), perceived usefulness of online reviews (*PUOR*), usage frequency of online reviews (*UFOR*), subjective happiness (*SH*). For the *SH* variable, after the CFA analysis an item was removed because it was not consistent.

## FINDINGS

We implemented four regressions models to test the hypotheses (Khlif & Guidara, 2018; Papa et al., 2018), starting from the sole control variables in Model 1. Model 2 adds all the independent variables which has the following effects on the dependent variable: for the variables *UFOR*, reciprocity, *SB* and *SH* we found a positive and significant effect on the dependent variable, allowing us to accept HPs 3, 5, 6, 7. By contrast, for the other variables *PUOR*, *CSII*, helping and *INFO* we found a non-significant effect, thus HPs 1, 2, 4, 8 are not supported. Furthermore, in order to see potential changes in the findings, we divided the independent variables in 2 different categories named “behavior in online platform” which includes *INFO*, *PUOR*, *UFOR* and the “psychological traits” which includes Helping, *CSII*, *SH* and reciprocity. In Model 3 we added to control variables and all the “behavior in online platform” variables, and we found a non-significant effect for all the variables. This means that the variable *UFOR* loses its strength. In Model 4 we test the “psychological traits” variables, in which the effect is positive and significant for the following variables: *CSII* (0,230\*\*\*), *SB* (0,367\*\*\*\*), *SH* (,130\*\*) and reciprocity (,197\*\*\*). The only variable with a non-significant effect in Model 4 is Helping.

**Table 3. Regressions Models**

| Variables                   | Model 1     | Model 2     | Model 3<br>(behaviour in<br>online platform) | Model 4<br>(psy. traits) |
|-----------------------------|-------------|-------------|--|--------------------------|
| Age                         | -,122(,092) | ,052(,370)  | -,011(,038)                                  | ,028(,626)               |
| Gender                      | ,050(,472)  | ,017(,752)  | ,063(,330)                                   | ,023(,684)               |
| EDU. BACK.                  | -,049(,489) | -,075(,160) | -,041(,532)                                  | -0,81(,136)              |
| Posted online review<br>Y/N | ,220(,004)  | ,173(,003)  | ,167(,019)                                   | ,196(,001)               |
| Posted review               | ,359(,000)  | ,261(,000)  | ,377(,000)                                   | ,260(,000)               |

|                         |           |             |            |            |
|-------------------------|-----------|-------------|------------|------------|
| INFO                    |           | -,019(,780) | ,071(,339) |            |
| PUOR                    |           | -,165(,154) | ,002(,989) |            |
| UFOR                    |           | ,242(,030)  | ,157(,240) |            |
| Helping                 |           | ,071(,238)  |            | ,094(,114) |
| CSII                    |           | ,062(,371)  |            | ,230(,001) |
| SB                      |           | ,376(,000)  |            | ,367(,000) |
| SH                      |           | ,112(,044)  |            | ,130(,022) |
| Reciprocity             |           | ,169(,015)  |            | ,197(,003) |
| R <sup>2</sup>          | ,225      | ,603        | ,366       | ,572       |
| Adjusted R <sup>2</sup> | ,201      | ,567        | ,330       | ,544       |
| F-value                 | 9,380**** | 16,620****  | 10,120**** | 20,940**** |

Notes: \*p<0.10; \*\*p<0.05; \*\*\*p<0.01; \*\*\*\* p<0.001

Source: own elaboration

Overall, the findings suggest that the factors that influence most customers to share knowledge are not those related to behavior in online platforms, but the ones related to psychological traits. In fact, CSII has a positive effect on CKS, which means that the customer shares information on social media when he/she tends to consider others' opinions when buying products/services. In addition, we have identified that the more a customer has strong ties with other members on social media, the more he/she will tend to share information with them, believing their participation in social media to be of key importance to other members. An interesting result that has emerged is that customers who are more self-confident and trying to enjoy life are more willing to share experiences and information on social media. Moreover, reciprocity plays an important role in the CKS, in fact if a customer knows that other members will help him/her, he/she thinks that it important to help other members and help the whole community. Contrary to expectations, the enjoyment of helping others in shopping activities in social media is not related is not a key factor that drive consumer to share knowledge in social media.

If "psychological" variables confirm our hypotheses, all the "behavioral" variables do not, except for one. Indeed, only for the UFOR variable we found a significant effect on CKS. This means that the more customers consult online reviews and the more they are willing to share knowledge about products and services on social media. Customers who do the most knowledge sharing are those who read so much online but don't necessarily think that all reviews are useful. In addition, we found that the attitude of asking for information about products/services before buying or to be influenced by friends is not an antecedent of knowledge sharing on social media platforms.

## DISCUSSION

Literature has shown growing interest in social media and knowledge sharing tools (Hajli & Lin, 2016; Rambe & Nel, 2015; Papa et al., 2018). However, there seems to be a lack of studies regarding the factors influencing the willingness of customers in sharing knowledge about products and services on online social media. For example, Lee et al., (2006) explored the factor that drive knowledge sharing among customers in web-based discussion board. However, the mentioned studied is qualitative and exploratory in nature and do not focus on knowledge about products and services. Therefore, to bridge this gap, this paper wants to explore what factors drive customers to share knowledge about products and services on online social networks. As such we provide a quantitative study testing several relationships. In doing so, we have explored the relationship between factors related to psychological and behavioral characteristics and customer knowledge sharing about products and services on social media.

## IMPLICATIONS AND CONCLUSION

Our findings help us to provide additional implications for the current theories. First, we contribute to the literature on knowledge management and knowledge sharing (Del Giudice & Della Peruta, 2016; Del Giudice et al., 2017; Scuotto et al., 2017), underlining the importance of online customer knowledge sharing on social media, which is related to the sharing between customers that brings value to the company and its brands. Second, we add to the “consumer knowledge sharing” stream of literature (Lee et al., 2006) by indicating that there is a positive relationship between psychological traits of customers in social media behavior and the customer knowledge sharing. More specifically, we suggest that bonds between people play an important role. In fact, when a person has many “virtual” relationships, they tend to share more information/experience on social media about products/services they are familiar with or have already purchased. Moreover, our data confirm that people are more willing to participate in online communities if they have positive emotions of happiness and delight (Dholakia & Bagozzi, 2006) and are also more willing to share information about products and services. Moreover, confirm that knowledge sharing in social media is facilitated by a strong sense of reciprocity.

Our findings help us to propose some managerial implications, especially for marketing managers. The proliferation of web-based platform brings tremendous impact on the retail industry (Lee et al., 2006). In particular, the explosion of social media platform, and in particular the possibility to sell directly through this platform (e.g. Instagram) provides retailers with wider opportunities to gain specific information of customers. In addition to the descriptive knowledge of customers, brands now can gain insights from the conversations or experience shared among customers in social media

platform, specifically in their social media pages. This knowledge is particularly important for brands and retailers to take competitive advantage over their competitors. Moreover, it is useful to comprehend what drives customers to share their knowledge in social media platforms. This quantitative study has identified some key elements of customer knowledge sharing in social media conversations. Building upon the findings of this study, we provide some generic guidelines for social media manager and retailers for promoting customer sharing in social media pages. For example, regarding our variable “enjoyment of helping”, social media manager goal should be to raise the level of enjoyment that the contributors experience as they help others. To reach this goal, social media managers should focus on enhancing and encouraging knowledge sharing. For example, rewarding those who share more knowledge or highlighting the most relevant comments. Another example should be related to the key element of reciprocity. In fact, social media manager should raise perception of reciprocity in the social media conversations, through recognition mechanism, where they can get recognized for their expertise during their participation and contribution (Lee et al., 2006).

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## MOBILE PAYMENT SYSTEMS: ADVANTAGES AND FUTURES

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### ABSTRACT

Nowadays, everything evolves with the help of technology. We live in a society with a high degree of adoption of new technologies, trade is present everywhere, and companies have passed the period when trade is practiced only in physical stores; is now looking for new opportunities to grow its business and satisfy customers by offering the easiest ways to purchase products. One of these growth opportunities is represented by mobile payment services that can bring businesses a major advantage on the market, both through ease of payments and by reducing cash costs. The research methodology is qualitative; a number of resources currently available in the field will be researched, and the technical experience in the integration of mobile payment systems will be helpful in presenting the payment system models. This paper presents the advantages of mobile payments (comfort, numerous use cases, compatibility with other platforms, increased security and data confidentiality, flexibility, speed in processing or lack of human error), as well as the essential features they have and differentiate on the market (simplicity, universality, security, costs, speed, interoperability, global payments). Also, below will be presented the most common payment models depending on the number of actors involved.

*Keywords: payment systems, mobile payments, payment models, mobile payment services*

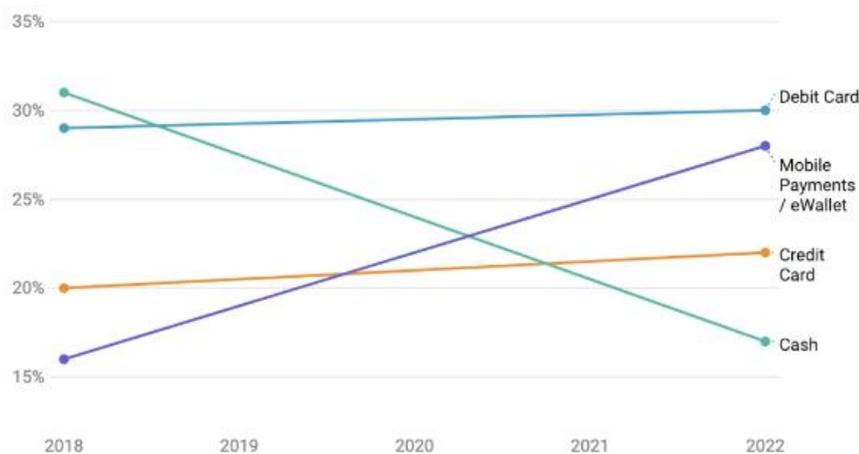
### INTRODUCTION

Payments have always been one of the main components of trade. Since then, the ways in which payments are made have constantly evolved and taken various forms. Whether we are talking about product-to-product exchanges, metal coins or paper banknotes, bank accounts or electronic wallets, the method of payment has become easier and easier, offering people various possibilities.

Mobile payments can be defined as "payments for goods, services and invoices with a mobile device using wireless and other communication technologies" (Dahlberg, et al., 2008). A similar definition is provided in (Pousttchi, 2008) and involves "the authorization or completion of payment processes through mobile communication techniques and devices".

In the usual sense, mobile payments represent the use of mobile devices to make the payment of the value of purchased goods and services, either online on the seller's website or through the mobile application or at a POS terminal. There are many ways in which payment can be initiated, among them we can list SMS, mobile application, browser, NFC or QR Code (Medici, 2018).

Over the last decade, payment methods have developed at a fast pace, stimulating trade growth by facilitating payments and offering new payment methods. Thus, from bank accounts and deposits, credit cards and checks, electronic payments have entered a new stage represented by electronic payments through mobile devices. Thus, electronic payments are developing with new providers and payment platforms, and as consumer behavior evolves, the concept of omnicommerce (payment by the same method, regardless of whether the purchase occurs in the store, online or through a mobile device) becomes more and more present, increasing the need for small retailers to adapt to the market by providing fast and secure payment solutions, and accepting mobile payments, helps increase customer satisfaction.



**Figure 1. Utilization rate statistics for payment types (VUBO Ltd, 2020)**

The graph shown in Figure 1 presents the evolution of the utilization rate of various types of payments in the period 2018-2022 worldwide. Thus, we notice that the utilization rate of mobile payments has an increasing trend; at the same time, the cash utilization rate decreases (mobile payments will double in volume over the next 5 years, and the share of cash will be reduced by half). We can also see a steady increase in the use of debit and credit cards, but much smaller than the percentage increase in the use of mobile payments.

The first part of this paper presents electronic payments, the forms they can take, as well as a series of statistics that highlight their importance in society. Next, the advantages of mobile payment systems will be presented; due to these advantages, mobile payment systems have become increasingly popular, becoming widely used and having the potential to grow rapidly.

The third part presents the characteristics of mobile payment systems, as well as the most used models currently on the market. It should be noted that in the process of integrating mobile payment systems into various services, the requirements of market regulators must be considered.

The last part presents the conclusions of this paper and will create the necessary context for future research in this field of perspective, which is developing rapidly in all geographical areas of the world.

## **LITERATURE REVIEW**

With an increasing number of users of smart devices and mobile payments, payment engines like Samsung Pay, Pay Android, Apple Pay, PayPal will grow ever faster. Among the significant mobile payment service providers, smaller providers are beginning to emerge, but with great growth potential that offer various application programming interfaces (APIs) or standard development kits (SDKs) that can be implemented by developers within mobile applications to provide a fast, easy and secure payment experience for users.

Mobile payments can be divided into 2 main categories: micropayments (worth less than 10 euros, for example small purchases or a ticket for public transport) and macro payments (worth more than 10 euros, for example online purchases). Thus, micropayments can be made directly via SMS sent from the mobile phone; sellers avoid debit / credit card payments because of high commissions. Macropayments are a major challenge for electronic payments providers due to the high security required to prevent fraud (Liebana, et al., 2014).

Mobile payments can also be divided into two categories: daily shopping or bills. For purchases, mobile payments compete with or supplement cash, debit cards, credit cards, or checks, while in the case of invoices, they typically provide access to account-based payment instruments, such as money transfers, Internet Banking or Mobile Banking, direct debit or receiving e-invoices (Dahlberg, et al., 2008).

Looking ahead, a number of factors will continue to positively influence the evolution of mobile payments and the growing decline of traditional payment instruments. Thus, the increase of the number of mobile devices and users worldwide is the most important factor; the generations Z (18-24 years old) and millennials (25-34 years old) will contribute to the growth of the mobile payments industry.

The mobile payments industry will revolutionize the way payments will be made as new technological innovations such as wearables, biometrics or blockchain technology develop. Increasing the number of portable devices such as watches, rings or other accessories equipped with NFC technology to make payments increasingly simple just by bringing objects closer to a POS terminal, even without an internet connection (VUBO Ltd Reading, 2018). One of the recent examples is the 2018 Winter Olympics where VISA offered viewers payment-enabled gloves and prepaid stickers (they have the potential to

turn any object into a payment device). Biometric payments are also an innovative technology that will revolutionize the mobile payments industry. Biometric payment systems analyze the biological characteristics of the individual, such as DNA, facial features or fingerprint. Due to the security and convenience of biometrics, it will replace traditional digital identification systems on a global scale.

## **METHODOLOGY**

This paper carries out a qualitative research based on the study of diversified resources in the field of mobile payments, the opportunities and development possibilities they offer, as well as the interaction of mobile payment systems with other information systems; a series of resources presented at various conferences in the field, articles published in international journals or resources published on various web platforms dedicated to research (ResearchGate.net, Academia.edu, etc.) will be analyzed. It also capitalizes on the practical experience gained in researching mobile payment systems and how they can be integrated into mobile applications.

## **ADVANTAGES OF MOBILE PAYMENTS**

Mobile payments have become increasingly simple and familiar to users; thus, by means of simple swipes, approaches or touches, they can make the payment of the desired products in a short time. Also, the implementation of mobile payment systems is simple for companies of all sizes through POS systems, smartphones or tablets; installation time is minimal and allows for rapid development, and for online merchants, the integration of electronic payment systems has become one of the mandatory requirements in terms of user experience.

According to Information Systems Audit and Control Association (ISACA) (ISACA, 2011), mobile internet development encourages consumers to use smart devices for trading purposes (online commerce, transfers or payments through a banking service or application, contactless payments, e-wallets, etc.). In the source (Report, 2008) is presented the idea that the development of digital payments has influenced the emergence of electronic wallets, the tool capable of storing payment means, loyalty vouchers, coupons and other facilities. Mobile payments also encourage users' consumer-oriented behavior due to their ease of payment and avoidance of lack of cash at the time of purchase. Thus, by implementing mobile payment systems, companies increase their revenues naturally, avoiding situations where lack of cash is a problem. (Lowry, 2016).

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From the point of view of companies that implement mobile payment services, they bring them a number of major benefits, including the rapid execution of transactions, the reduction of human error, the increase in cash flows or the reduction of labor costs.

In terms of speed of transactions, it saves time because the payment data of the card or mobile device is read automatically, without human interaction, and they are sent to the payment processor to be processed or to various resources management systems within the company.

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increased customer satisfaction and the avoidance of fraud compared to traditional payments. Like remote mobile payments, mobile payments via NFC technology have the advantage of increased security because customer account information is not directly exposed, it is encrypted and can only be read in close proximity to the reader.

## FEATURES OF MOBILE PAYMENT SYSTEMS

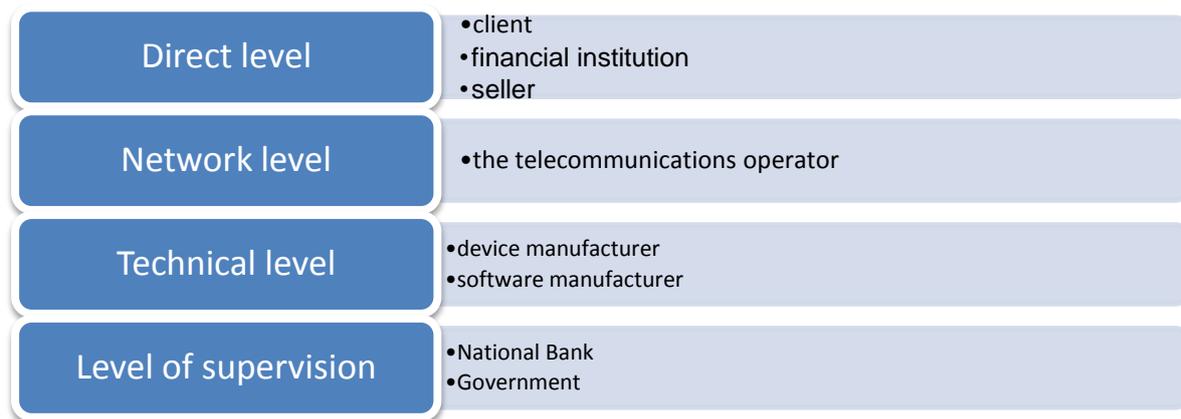
At present, people have the opportunity to choose between different payment methods, either directly through a banking institution, through the mobile network operator or through independent payment systems. Thus, there is a wide range of mobile payment solutions using SMS (Short Message Service), USSD(Unstructured Supplementary Service Data), WAP(Wireless Application Protocol) or NFC (Near Field Communication).

Mobile payment services, in order to be accepted by users and currently used by them, must have a number of essential features. These include: simplicity, usability, universality, security, privacy, low cost and high speed (Carr, 2007).

| Feature                         | Description  |
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| <b>Costs</b>                    | The cost of payment must not be higher than the cost through other systems.  |
| <b>Speed</b>                    | Payments between the actors involved must be made within an acceptable time frame.   |
| <b>Interoperability</b>         | The payment system must be able to interact with other similar mobile payment systems in the same country or abroad.   |
| <b>Global payments</b>          | The system must be available for cross-border payments.  |

**Table 3. Features mobile payment services**

Within the entire process involving the use of electronic payments, a number of actors (customer, seller, telecom operator, regulatory institutions, etc.) intervenes directly or indirectly; their involvement is more or less obvious in day-to-day transactions. The electronic payment process can be divided into 4 levels, depending on the actors involved (Figure 2).



**Figure 2. Levels of the electronic payment process**

Thus, according to Figure 2, the factors directly involved in the process of making an electronic payment are the customer who wants to make the payment, the intermediary financial institutions, respectively the seller. As technical intermediaries, the telecommunications operator (network level) and the manufacturers of software and smart devices (technical level), respectively the National Bank as supervisor of financial operations intervene.

The purpose of payments is to transfer the monetary value from the payer to the seller (Peiro, et al., 1998). The actors directly involved in the payment are identified at the first level, and the type of payment varies depending on the number of participants involved. Payment models can be defined based on this number.

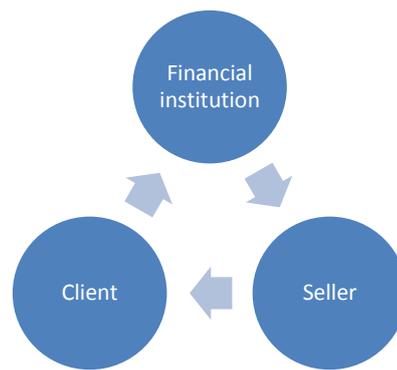
The literature presents a series of payment models depending on the number of actors involved. For this research, 3 of them are relevant: the model with 4 actors involved, the model with 3 actors involved, respectively the model with 2 actors involved.

The model with 4 actors involved (Four-party mobile payment model (Peiro, et al., 1998)) contains 4 actors directly involved, among which we have the payer, the beneficiary, the issuer (representative of the payer), the acquirer (representative of the beneficiary) (Figure 3).



**Figure 3. Four-party mobile payment model**

The model based on 3 actors involved (Three-party mobile payment model (Ham, et al., 2002)) presents the exchange of information related to transactions between 3 actors: client, seller, financial institution (Figure 4).



**Figure 4. Three-party mobile payment model**

From a theoretical point of view, the model involving 3 actors is much more efficient if we analyze the costs. In a model with 4 actors, both the issuer and the acquirer have their own set of commissions. Also, in the model based on 3 actors, the advantage also consists in the fact that they offer a much simplified payment method and are less expensive in the case of international payments.

Model based on 2 actors (Two-party mobile payment model – Figure 5) is the simplest and involves only 2 actors: the client and the financial sector; Mobile Banking or online banking platforms can be concrete examples of implementation.



**Figure 5. Two-party mobile payment model**

The common feature of these 3 models is that the information (payment request, monetary value) is transmitted between 2 parties involved, and the model based on 2 actors can be extended to any other transaction.

Depending on how the payment is made and the technologies used, mobile payment solutions can be based on your bank account, credit card or telecommunications provider's invoice.

Mobile payments based on bank accounts are based on the debit of the user's account at the time of payment and the crediting of the seller's account. The user's bank account is often associated with a telephone number; in this situation, collaboration between financial institutions and telecommunications operators could benefit both parties by increasing the number of transactions and amounts processed.

Credit card transactions have a similar mode of operation to the model based on bank accounts, the amount being credited to the seller's account. The credit card number also corresponds to a phone number. The disadvantage of this model is the level of credit card spread in that area and only those users will be able to use this payment solution.

Transactions based on the telecommunications provider's invoice are based on the use of the mobile phone by the buyers for various payments, and the costs are transmitted by the telecommunications provider. This model can be implemented either by prepayment or by subsequent payment of the invoice.

## CONCLUSIONS

Today, electronic payments are one of the most commonly used services by people. Thus, the average annual increase of 10% in electronic payments demonstrates that it is one of the services that bring real benefits to people and paves the way for new ways of managing money and interacting with financial institutions through alternative technologies. We also find that mobile payments can be integrated into a wide variety of applications, from e-commerce, payments and bank transfers to integration with IoT devices and other emerging technologies.

The way mobile payments have developed and been adopted by people is mainly due to the advantages and innovations they bring, among which we can list ease of use, integration into various complex IT solutions, high security, confidentiality, low transaction costs or social influence. In addition to the advantages presented, mobile payments are the basis for the implementation of electronic wallet products and payments through NFC technology; it is also the basis for payments via IoT devices such as wearables, bracelets, smart home systems, etc.

In order to optimally operate and facilitate the payment process through mobile devices, payments are made through a variety of technologies, including SMS (Short Message Service), USSD (Unstructured Supplementary Service Data), WAP (Wireless Application Protocol) or NFC (Near Field Communication). Mobile payments also involve the interaction of different actors at different levels. Thus, we have as direct participants the client, the beneficiary and the financial institution that mediates the transaction, and in addition to these we also have actors such as telecommunications providers, hardware and software manufacturers or regulatory institutions. Also, a series of models based on 2,3 or 4 actors involved are usually used, each of these models being used in practice depending on the specific context (for example, the model based on 2 actors is used in the use of applications mobile banking or online banking).

Globally, there are a large number of payment service providers (PSPs), or services developed by large companies such as Amazon, Google, Alibaba, but also lesser known services, but with great potential for development (Stripe, Braintree, etc).

Considering all the aspects analyzed and the conclusions formulated, mobile payments are currently one of the services in development, with great potential for growth and innovation.

Continuing this research, I propose to make a prototype application that integrates mobile payment systems. Based on this prototype, I will measure the impact that mobile payment systems have on individual users, as well as how their experience can be improved by adding new features.

## ACKNOWLEDGEMENTS

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## MOBILE PAYMENT SYSTEMS: ADVANTAGES AND FUTURES

**Bălțoi, Ion-Costel-Marius**

Doctoral School of Economic Informatics, Bucharest University of Economic Studies, Bucharest, Romania

### ABSTRACT

Nowadays, everything evolves with the help of technology. We live in a society with a high degree of adoption of new technologies, trade is present everywhere, and companies have passed the period when trade is practiced only in physical stores; it is now looking for new opportunities to grow its business and satisfy customers by offering the easiest ways to purchase products. One of these growth opportunities is represented by mobile payment services that can bring businesses a major advantage on the market, both through ease of payments and by reducing cash costs. The research methodology is qualitative; a number of resources currently available in the field will be researched, and the technical experience in the integration of mobile payment systems will be helpful in presenting the payment system models. This paper presents the advantages of mobile payments (comfort, numerous use cases, compatibility with other platforms, increased security and data confidentiality, flexibility, speed in processing or lack of human error), as well as the essential features they have and differentiate on the market (simplicity, universality, security, costs, speed, interoperability, global payments). Also, below will be presented the most common payment models depending on the number of actors involved and the implications of mobile payments.

*Keywords: payment systems, mobile payments, payment models, mobile payment services*

### INTRODUCTION

Payments have always been one of the main components of trade. Since then, the ways in which payments are made have constantly evolved and taken various forms. Whether we are talking about product-to-product exchanges, metal coins or paper banknotes, bank accounts or electronic wallets, the method of payment has become easier and easier, offering people various possibilities.

The purpose of this paper is to research payments through mobile devices and deepen their implications in the digital economy. Currently, the digitalization of economic activity and its transition to mobile devices offers a lot of research opportunities, both on the technological side and in terms of how these changes impact society and end users.

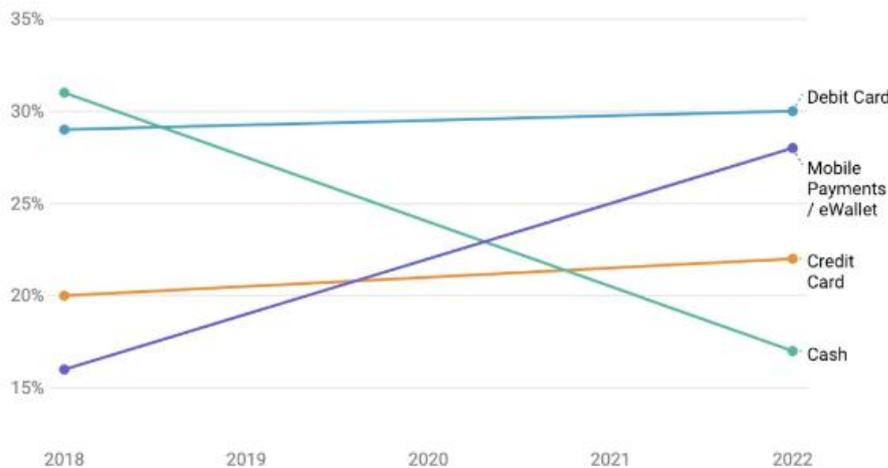
The objective of the paper is to offer a broad perspective on the state of knowledge up to the present moment in the field of mobile payments and to create the necessary context for future research in this field. Thus, it is pursued to present the advantages, characteristics and models of electronic payments, as well as the implications of mobile payments in the digital economy. As we know, mobile payments are a vast field of knowledge, increasingly present in everyday life and requiring in-depth analysis so that it is the starting point for further research on the impact of mobile payments on users and how they can be integrated into fintech applications.

Mobile payments can be defined as "payments for goods, services and invoices with a mobile device using wireless and other communication technologies" (Dahlberg, et al., 2008). A similar definition is provided in (Pousttchi, 2008) and involves "the authorization or completion of payment processes through mobile communication techniques and devices".

In the usual sense, mobile payments represent the use of mobile devices to make the payment of the value of purchased goods and services, either online on the seller's website or through the mobile application or at a POS terminal. There are many ways in which payment can be initiated, among them we can list SMS, mobile application, browser, NFC or QR Code (Medici, 2018).

Over the last decade, payment methods have developed at a fast pace, stimulating trade growth by facilitating payments and offering new payment methods. Thus, from bank accounts and deposits, credit cards and checks, electronic payments have entered a new stage represented by electronic payments through mobile devices. Thus, electronic payments are developing with new providers and payment platforms, and as consumer behavior evolves, the concept of omnicommerce (payment by the same method, regardless of whether the purchase occurs in the store, online or through a mobile device) becomes more and more present, increasing the need for small retailers to adapt to the market by providing fast and secure payment solutions, and accepting mobile payments, helps increase customer satisfaction.

The graph shown in Figure 1 presents the evolution of the utilization rate of various types of payments in the period 2018-2022 worldwide. Thus, we notice that the utilization rate of mobile payments has an increasing trend; at the same time, the cash utilization rate decreases (mobile payments will double in volume over the next 5 years, and the share of cash will be reduced by half). We can also see a steady increase in the use of debit and credit cards, but much smaller than the percentage increase in the use of mobile payments.



**Figure 6. Utilization rate statistics for payment types (VUBO Ltd, 2020)**

The first part of this paper presents electronic payments, the forms they can take, as well as a series of statistics that highlight their importance in society. Next, the advantages of mobile payment systems will be presented; due to these advantages, mobile payment systems have become increasingly popular, becoming widely used and having the potential to grow rapidly.

The third part presents the characteristics of mobile payment systems, as well as the most used models currently on the market. It should be noted that in the process of integrating mobile payment systems into various services, the requirements of market regulators must be considered.

The next chapter is dedicated to the implications of mobile payments in the digital economy. Thus, the implications on the users, the financial environment, at macroeconomic level will be presented. Also, we will present some factors that influence their development.

The last part presents the conclusions of this paper and will create the necessary context for future research in this field of perspective, which is developing rapidly in all geographical areas of the world.

## LITERATURE REVIEW

With an increasing number of users of smart devices and mobile payments, payment engines like Samsung Pay, Android Pay, Apple Pay, PayPal will grow ever faster. Among the significant mobile payment service providers, smaller providers are beginning to emerge, but with great growth potential that offer various application programming interfaces (APIs) or standard development kits (SDKs) that can be implemented by developers within mobile applications to provide a fast, easy and secure payment experience for users.

Mobile payments can be divided into 2 main categories: micropayments (worth less than 10 euros, for example small purchases or a ticket for public transport) and macro payments (worth more than 10

euros, for example online purchases). Thus, micropayments can be made directly via SMS sent from the mobile phone; sellers avoid debit / credit card payments because of high commissions. Macropayments are a major challenge for electronic payments providers due to the high security required to prevent fraud (Liebana, et al., 2014).

Mobile payments can also be divided into two categories: daily shopping or bills. For purchases, mobile payments compete with or supplement cash, debit cards, credit cards, or checks, while in the case of invoices, they typically provide access to account-based payment instruments, such as money transfers, Internet Banking or Mobile Banking, direct debit or receiving e-invoices (Dahlberg, et al., 2008).

Looking ahead, a number of factors will continue to positively influence the evolution of mobile payments and the growing decline of traditional payment instruments. Thus, the increase of the number of mobile devices and users worldwide is the most important factor; the generations Z (18-24 years old) and millennials (25-34 years old) will contribute to the growth of the mobile payments industry.

The study (Karjaluo, et al., 2019) performs an analysis on the adoption and use of contactless mobile payments (CMP). Compared to other previous studies, it analyzes the factors that influence the intention to use mobile banking applications or other mobile payment applications. In this sense, the model is built on the analysis of concepts such as perceived risk, brand involvement, overall satisfaction or continuous use of contactless mobile payments.

The mobile payments industry will revolutionize the way payments will be made as new technological innovations such as wearables, biometrics or blockchain technology develop. Increasing the number of portable devices such as watches, rings or other accessories equipped with NFC technology to make payments increasingly simple just by bringing objects closer to a POS terminal, even without an internet connection (VUBO Ltd Reading, 2018). One of the recent examples is the 2018 Winter Olympics where VISA offered viewers payment-enabled gloves and prepaid stickers (they have the potential to turn any object into a payment device). Biometric payments are also an innovative technology that will revolutionize the mobile payments industry. Biometric payment systems analyze the biological characteristics of the individual, such as DNA, facial features or fingerprint. Due to the security and convenience of biometrics, it will replace traditional digital identification systems on a global scale.

## **METHODOLOGY**

This paper carries out a qualitative research based on the study of diversified resources in the field of mobile payments, the opportunities and development possibilities they offer, as well as the interaction of mobile payment systems with other information systems; a series of resources presented at various conferences in the field, articles published in international journals or resources published on various

web platforms dedicated to research (ResearchGate.net, Academia.edu, etc.) will be analyzed. It also capitalizes on the practical experience gained in researching mobile payment systems and how they can be integrated into mobile applications.

## **ADVANTAGES OF MOBILE PAYMENTS**

Mobile payments have become increasingly simple and familiar to users; thus, by means of simple swipes, approaches or touches, they can make the payment of the desired products in a short time. Also, the implementation of mobile payment systems is simple for companies of all sizes through POS systems, smartphones or tablets; installation time is minimal and allows for rapid development, and for online merchants, the integration of electronic payment systems has become one of the mandatory requirements in terms of user experience.

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**Figure 7. Levels of the electronic payment process**

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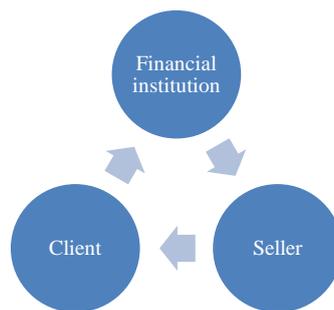
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The model based on 3 actors involved (Three-party mobile payment model (Ham, et al., 2002)) presents the exchange of information related to transactions between 3 actors: client, seller, financial institution (Figure 4).



**Figure 9. Three-party mobile payment model**

From a theoretical point of view, the model involving 3 actors is much more efficient if we analyze the costs. In a model with 4 actors, both the issuer and the acquirer have their own set of commissions. Also, in the model based on 3 actors, the advantage also consists in the fact that they offer a much simplified payment method and are less expensive in the case of international payments.

Model based on 2 actors (Two-party mobile payment model – Figure 5) is the simplest and involves only 2 actors: the client and the financial sector; Mobile Banking or online banking platforms can be concrete examples of implementation.



**Figure 10. Two-party mobile payment model**

The common feature of these 3 models is that the information (payment request, monetary value) is transmitted between 2 parties involved, and the model based on 2 actors can be extended to any other transaction.

Depending on how the payment is made and the technologies used, mobile payment solutions can be based on your bank account, credit card or telecommunications provider's invoice.

Mobile payments based on bank accounts are based on the debit of the user's account at the time of payment and the crediting of the seller's account. The user's bank account is often associated with a telephone number; in this situation, collaboration between financial institutions and telecommunications operators could benefit both parties by increasing the number of transactions and amounts processed.

Credit card transactions have a similar mode of operation to the model based on bank accounts, the amount being credited to the seller's account. The credit card number also corresponds to a phone number. The disadvantage of this model is the level of credit card spread in that area and only those users will be able to use this payment solution.

Transactions based on the telecommunications provider's invoice are based on the use of the mobile phone by the buyers for various payments, and the costs are transmitted by the telecommunications provider. This model can be implemented either by prepayment or by subsequent payment of the invoice.

## **IMPLICATIONS OF MOBILE PAYMENTS**

The continuous development of mobile payments contributes to the process of digitalization of the economy (often called the "digital economy"). The digital economy involves major changes in people's behavior (especially, changing consumption habits), as well as in the economic activity carried out by companies (computerization of economic activity through integrated software applications for managing resources and economic processes).

Among the benefits of the digital economy for individual users, we can list the extension of access to remote financial services - sending and receiving money, access to financial products for saving and credit, mobile applications for tracking stock quotes or IT systems for wealth management. Under these

conditions, the rapid transfer of money and real-time tracking of various indices has changed the way people interact with the financial system; At this moment, technology is becoming more and more important, and the financial sector must adapt by offering customized solutions to customers so as to better meet their needs.

At the level of actors involved in economic activity, the digital economy supports the efficient use of resources by reducing the costs of remittances, reducing branch networks at the regional level and providing alternatives for managing own finances through mobile applications. We can say that mobile payment systems support the increase of the financial intermediation in the economy by redistributing the monetary value from those who have surplus to those who need cheaper loans and obtained in a short time.

At the macroeconomic level, mobile payments stimulate the emergence of new alternative services that contribute through various taxes to state revenues. In this regard, we can note the alternative accommodation services at non-hotel units (Booking, AirBnb, etc.), car sharing services (Uber, Bolt, etc.), digital content delivered directly to mobile devices (Netflix, Spotify, etc.) , delivery services (Glovo, Uber Eats, etc). From a commercial point of view, access to mobile payment systems extends the access of intermediation platforms globally, without being limited to a certain geographical, social or cultural specific.

The digital economy, through mobile payments, supports the efforts of states to discourage various illegal behaviors, such as non-declaration of income and non-payment of related taxes, money laundering, tax evasion, etc. Regarding the transactions made on the Internet or the business carried out in other states, the problem of taxation arises. In this sense, a mechanism obtained by consensus of the states is needed so that they can be tracked and an international taxation can be applied.

As a whole, the digital economy favors the evolution of mobile payment systems and the transition to new technologies that positively influence access to electronic payments, processing time or costs. Thus, a number of factors have the potential to change the current rules by which the financial system works. These include the PSD2 directive by which all electronic payment providers must increase the level of security for online payments (Strong Customer Authentication-SCA) and provide access to affiliates such as fintech companies through secure web services (in this way, the monopoly of financial institutions is diminished by market entry and new companies, with an emphasis on technology). Also, instant payments can change the market by transferring monetary value in real time between those involved in transactions; fintech solutions allow money to be sent directly from e-wallets to other people based on their phone number or user account, without the need for an IBAN code. It is worth analyzing the impact of technologies such as artificial intelligence and the blockchain in electronic payments; Artificial intelligence contributes to the analysis of large volumes of data and the analysis of

user behavior, acquisitions made in the past and forecasting future acquisitions, as well as the detection of possible fraud. In the case of blockchain technology, it can offer various advantages such as improved transparency, increased security, speed in processing), but has a number of ambiguities related to interoperability with current financial systems, the costs of transactions and the multitude of digital currencies and their standardization.

## CONCLUSIONS

Today, electronic payments are one of the most commonly used services by people. Thus, the average annual increase of 10% in electronic payments demonstrates that it is one of the services that bring real benefits to people and paves the way for new ways of managing money and interacting with financial institutions through alternative technologies. We also find that mobile payments can be integrated into a wide variety of applications, from e-commerce, payments and bank transfers to integration with IoT devices and other emerging technologies.

The way mobile payments have developed and been adopted by people is mainly due to the advantages and innovations they bring, among which we can list ease of use, integration into various complex IT solutions, high security, confidentiality, low transaction costs or social influence. In addition to the advantages presented, mobile payments are the basis for the implementation of electronic wallet products and payments through NFC technology; it is also the basis for payments via IoT devices such as wearables, bracelets, smart home systems, etc.

Mobile payments also involve the interaction of different actors at different levels. Thus, we have as direct participants the client, the beneficiary and the financial institution that mediates the transaction, and in addition to these we also have actors such as telecommunications providers, hardware and software manufacturers or regulatory institutions. Also, a series of models based on 2,3 or 4 actors involved are usually used, each of these models being used in practice depending on the specific context (for example, the model based on 2 actors is used in the use of applications mobile banking or online banking).

Globally, there are a large number of payment service providers (PSPs), or services developed by large companies such as Amazon, Google, Alibaba, but also lesser known services, but with great potential for development (Stripe, Braintree, etc).

Considering all the aspects analyzed and the conclusions formulated, mobile payments are currently one of the services in development, with great potential for growth and innovation.

Continuing this research, I propose to make a prototype application that integrates mobile payment systems. Based on this prototype, I will measure the impact that mobile payment systems have on individual users, as well as how their experience can be improved by adding new features.

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## BIASES AND HEURISTICS IN CONSUMER BEHAVIOR: COMPARING GENERATION X AND MILLENNIAL CONSUMERS

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### ABSTRACT

Understanding consumers' behavior and unlocking the elements that trigger the decision-making process of consumers is a key element of marketing. Traditional theories of consumer behavior, based on the assumption that consumer choices are fully rational, are proven to be incomplete. Not only they do not take into account cognitive processes such as social comparison, imitation and repetitive behaviour (habits) but they do not explain how the changes in the macro-environment influence the profile of people born in a specific time period, imprinting a specific and common purchasing and consumption behavior. Leveraging the theoretical contribution on consumer biases taxonomies, hence the fallacies in the rational economic behavior, and the generational theories, this paper aims at comparing the response to consumer biases between two generations: Generation X and Generation Y/Millennials. A structured field research on how different generations react to biases and heuristics has not yet been proposed. This paper, through data collection from two focus groups of eight participants each, infers that each generation, due to the imprinting of specific social and macro-environmental externalities has a different response to consumer biases. Understanding how different generations react to biases, that *de facto* create fallacies in the rational decision-making process of consumers, can definitely contribute to define a new perspective on market segmentation and can provide useful frameworks for companies to maximize the return on investment on marketing expenditures.

*Keywords: consumer behavior; behavioral economics; neuromarketing; consumer biases; heuristics; adaptive behavior; decision-making; generation X; millennials; generation differences;*

### INTRODUCTION

In 2019 companies have spent 563 Billion US dollars in advertising with a 4% growth from 2018 (*Statista, 2019*). It is without the shadow of a doubt that targeting the right segment of customers, stimulating potential buyers and fulfilling the needs and desires of the customers is key for companies whose objective is creating customer value and building profitable customer relationships (*Armstrong et al., 2014*). However, due to the expansion of the domestic markets into a global economy and the

increase in cross-border competition, today consumers are bombarded with advertising promoting different products that aim at satisfying the same needs (Bennett, 2017; Coulter et al., 2001; Kresh et al., 2018). This means that consumers are continuously making choices among products, comparing prices or benchmarking quality but they are not fully aware of the consequences of those choices (Dzyabura and Hauser, 2019; Nelson, 1970; Obermiller, 2019). The way in which consumers make choices and take decisions has been the key research question for academics in the marketing field for the last decades (Sprotles and Kendall, 1986; Tsai and Honka, 2018; Xiao and Benbasat, 2018). Traditional theory of consumer behavior has always taken for granted the assumption that consumer choices are fully rational decisions (Jager et al., 2000). The academic studies on neuromarketing first, and the literature on cognitive biases have tried to explain why consumers' behavior is not always rational (Kahneman and Tversky, 1973; Trevisan, 2016; Xinhui and Han, 2016) but, instead, violates the axioms stated by rational predictive models such as the Expected Utility Theory (Navarro-Martinez et al., 2018; Takemura, 2019; Von Neumann and Morgenstern, 1947). Building on the academic research developed in the field of consumer biases, our research question aims at understanding what are the different responses to consumer biases between generations. Recent studies have proven the existence of consumer biases when exposed to advertising (Xiao and Benbasat, 2018), have proven the individualistic response to environmental stimuli in the act of purchasing (Carter et al., 2007). However, literature still hasn't analyzed the different responses to consumer biases between generations.

To deepen the literature on generational theories and consumer biases we conducted two focus groups comparing the reaction of the exposure to consumer biases of two different generations: Generation X and Generation Y/Millennials.

Our research demonstrates that Generation X suffers from a bias called endowment effect that appears to be characteristic of this generation. The adversity to risk taking, the attachment to the well-known brand and the distrust towards the internet leads this generation to sub-optimal decision making. Generation Y, by being technologically savvy, less brand driven and more oriented to deal-making appears to be prone to risk taking to maximize the return on the choices made.

The understanding of the difference in behaviors and the differences in the reaction to biases and heuristics of different Generations, represents an essential condition for designing and implementing successful marketing campaigns. Studying cognitive biases and heuristics highlights the importance of a different perspective in the segmentation models. This research can be particularly appealing to practitioners since it allows a multi-dimensional approach to the identification of the decision-making processes that leads consumers' preferences.

## THEORETICAL BACKGROUND

The traditional theory of consumer behavior is based on the assumption that consumer choices are fully rational decisions (Jager et al., 2000) but, in everyday life, the behaviour of people is typified by multi-dimensional optimization (Ceschi et al., 2014). In fact, people engage in cognitive processes such as social comparison, imitation and repetitive behaviour (habits) so as to efficiently use their cognitive processes. Neuromarketing, a branch of marketing, aims at filling this gap between traditional consumer behavior and cognitive processes trying to foresee consumers' reaction when exposed to an advertisement (Alvino et al., 2018; Bakardjieva and Kimmel, 2017; Hsu, 2017).

Some studies investigated this aspect focusing the attention on biases (Ceschi et al., 2019; Kahneman et al., 1982). It emerged that biases are fallacies in the rational economic behavior due to psychological factors and individual differences (Ceschi et al., 2014). To explain the extent to which individual perception models human behavior, academics have tried to find theoretical taxonomies of biases. Arnott (2006) has proposed a classification of biases related to the computer science domain to establish all the normative violations executed by human beings compared to machines. Carter et al. (2007) have focused on finding taxonomies of biases in managerial decision-making. Such taxonomies however are specific to the field of study of the authors. Our research leverages the taxonomy of biases proposed by Ceschi et al. (2019) that through a three step analysis overcomes the limits of empirical solutions and theoretical taxonomies present in the previous literature.

However, theoretical contribution on biases has been focused on aggregate effects using between-subjects designs in order to demonstrate violations of rationality (Ceschi et al., 2019; Kahneman et al., 1982). Other studies have been designed to demonstrate the relationship between biases to enrich the academic literature of individual differences by integrating intelligent measures with few biases tasks (Bruine de Bruin et al., 2007; Slugoski et al., 1993).

Existing literature has deepened the influence of groups in the decision-making processes and part of the existing literature infers that groups tend to be less biased, or act in a more rational way, resulting in better decision-making than individuals (Kameda and Tindale, 2006; Tindale et al., 2013). However, academic literature still hasn't found a common perspective on the subject (Gigone and Hastie, 1993; Kerr et al., 1996; Kerr and Tindale, 2004; Sunstein, 2004) In their study, de Wild et al. (2018) state that even though groups perform equally as their best member on intellectual tasks that have a demonstrably correct answer and high information load (Laughlin, 1980; Laughlin et al., 1991, 1998), often they appear to be as biased as, or even more biased than, individuals operating alone and independently (Kerr et al., 1996; Kerr and Tindale, 2004).

Academic literature still hasn't analyzed the role of cognitive biases between generations. Our research question aims at understanding what are the different responses to consumer biases between

generations. Understanding how different generations react to biases, that *de facto* create fallacies in the rational decision-making process of consumers, can definitely contribute to define a new perspective on market segmentation driven by a multi-dimensional approach and can provide useful and practical frameworks for companies to maximize the return on investments on marketing expenditures.

Our research builds on the theoretical contribution of generation theorists that assert that changes in the macro-environment influence the profile of people born in a specific time period, imprinting a specific and common purchasing and consumption behavior (Anderson et al., 2018; Giovannini et al., 2015; Howe and Strauss, 2007; Lissitsa and Kol, 2016). Generations are shaped by the context in which they emerged and each cohort has specific traits (Amplitude, 2009; Greenberg, 2011; McKinsey, 2019):

**Generation Baby Boomer (1940-59):** were immersed in the post-World War II context and are best represented by consumption as an expression of ideology;

**Generation X (1960-79):** were born in a political transition phase, where capitalism and meritocracy dominated. They are imprinted with a materialistic, individualistic and competitive behavior, oriented to status expression focusing their aspirational consumer behavior on well-known brands and luxury goods

**Generation Y (1980-94):** were born in economic stability within the globalization era and have witnessed the important emergence of the internet. This generation is characterized by strong self-orientation that is reflected in the consumer habits which are experience oriented and less brand oriented.

**Generation Z (1995-2010):** the main spur to consumption is the search for truth, in both a personal and a communal form. This generation feels comfortable not having only one way to be itself. Its search for authenticity generates greater freedom of expression and greater openness to understanding different kinds of people.

This paper, by leveraging on the classification of measurable consumer behavior biases theorized by (Ceschi et al., 2019) and the studies of generation theorists (Jain and Viswanathan, 2015; Thomas et al., 2014) aims at studying the response to different biases between Generation X and the Millennials/GenY. The study of the correlation between generations and consumer biases represents a contribution to the existing literature as it tries to demonstrate how these biases influence the consumer behaviors of two different generations: one that has seen the emergence of the internet era and has learned to interact with digital and online shopping (i.e. Gen X) and one that has grown up being a “fully digital” generation (Gen Y).

## METHODOLOGY

Our research methodology leverages the focus group technique which is widely spread in the social science research (Wilkinson, 1998). This data collection methodology has been used in a first attempt to deepen the literature on consumer behavior biases and to better understand the phenomenon. As stated by (Beck et al., 1986) “a focus group is an informal discussion among selected individuals about specific topics”. To conduct our focus group we selected, for both Generation X and Millennials, a group of homogeneous individuals, especially in relation to 'prestige' or 'status' to avoid communication conflicts or status inhibition (Carey et al., 1994). Discussions between individuals in the focus groups have been facilitated by a moderator, especially introducing the argument and to put every participant at ease. The small number of participants has been chosen in order to facilitate the discussion between members of the focus group and to have a direct glimpse at the phenomenon to gain valuable information on language or behavior specifics prior to conducting in-depth interviews or large scale surveys (Threlfall, 1999).

Table 1 indicates the composition of each focus group

**Table1**

| Participants     | Generation X | Generation Y |
|------------------|--------------|--------------|
| Number of female | 4            | 5            |
| Number of male   | 4            | 3            |
| Total            | 8            | 8            |

### *Personal elaboration*

Leveraging the classification of consumer biases of Ceschi et al. (Ceschi et al., 2019) the members of the focus groups have undergone to six different test in order to study six different consumer biases:

**Endowment effect:** this test aims at studying the online consumer behavior of the two generations regarding the choice between the same product but sold on two different websites. One, a well-known e-commerce website with a higher selling price, the other an unknown website but with a lower selling price. The groups have been asked to choose and motivate their choice. Then the participants were presented with a rating of both e-commerce websites and they were asked to change or confirm their choice.

**Framing Effect:** the participants were asked to choose between two identical products but represented differently (the image depicted a form of Parmigiano Reggiano, one intact and the other one with a slice already cutted) with the same final price for the consumer. One of the products had an initial higher price but presented a discount of 20% so that final price to consumer was equal to the other product.

**Anchoring heuristic:** to each group two questions have been asked on a geography subject. None of the participants knew the answer. The first question served as anchor for the second one thus for the definitive choice of the sample.

**Reference price:** this bias has been tested by asking the participants to first, choose between two different products with different characteristics and prices, second they were presented with a third product less costly for the consumer but more advantageous for the producer.

**Time discounting:** to test gambler's fallacy, participants to the focus groups were asked to choose between two types of rewards to participate to the focus groups. Both the rewards were Amazon bonus. The first reward consisted on 25 euros on Amazon bonus delivered immediately, the second reward consisted in a 35 euros Amazon bonus delivered in 50 days. The participants who chose the immediate bonus were given specific conditions: to keep the bonus they had to obtaining the head face of a coin after a sequence of 1 toss or they could have kept 15 euros without playing the coin game.

**Representativeness heuristic:** this test consisted in presenting the focus groups with two different individuals. These two different individuals shared the same set of adjectives to describe them but were presented in mixed order to the participants. To demonstrate the representativeness heuristic, we asked the participants to judge the characters presented based on the adjectives read and were asked to pin point the adjectives that best described them.

Each focus group has undergone to the same questions and in the same order, the process by which the facilitator has deployed the questions has been the most similar as possible between the two groups.

For each question of the different set of test we let the participants 10 to 15 minutes to discuss the possible answer.

## FINDINGS

The preliminary analysis of the results emerging from the six tests performed to the Generation X group and the Generation Y group highlights the existence of biases deriving from the belonging to a specific group, hence a specific generation.

Table 2 indicates the results for each bias measured for each focus group

Table 2

| Test performed                      | Generation X   | Generation Y  |
|-------------------------------------|--|---|
| <b>General discussion</b>           | 25% of the respondents were aware that their choices were biased by the images, sounds and captions of both product's characteristics or the environment in which the purchase was made. After an explanation of the biases 100% of the respondents stated that they would have been able to control those biases.   | More than 50% of the respondents were aware that their choices were biased by the images, sounds and captions of both product's characteristics or the environment in which the purchase was made. The group expressed that 90% of the series they watched on Netflix are actually series recommended by Netflix.   |
| <b>Endowment effect</b>             | 88% of the respondents preferred to buy the product on a well-known website rather than an unknown website but with a much lower price. When confronted with the references of the two websites (low references for the well-known website and vice versa), 25% of the respondent changed their mind but the other 75% still preferred to buy on a well-know website even with bad references. | 75% of the respondents preferred to buy the smartphone on the well-known website even if the price was two times higher than the other, less known, website. After showing the references on the products of the websites (low references for the well-known website and vice versa), 100% of the respondents changed their choice.   |
| <b>Framing Effect</b>               | 100% of the respondents, when confronted to the image of two identical products showed no preference between the two products. After showing two different prices with two different discounts but same final price, 88% of the respondents chose the product with the initial higher price stating that the higher price was a reflection of the superior quality of the product.             | 100% of the respondents, when confronted to the image of two identical products showed no preference between the two products. After showing two different prices with two different discounts but same final price, 100% of the respondents chose the product with the initial higher price stating that the higher price was a reflection of the superior quality of the product. |
| <b>Anchoring heuristic</b>          | 100% of the respondents, when asked to answer to two different questions that had no bond between them, leveraged the answer to the first question in order to answer the second question. This proves that all the participants in Generation X cohort were subject to the anchoring effect.  | 100% of the respondents, when asked to answer to two different questions that had no bond between them, leveraged the answer to the first question in order to answer the second question. This proves that all the participants were subject to the anchoring effect.  |
| <b>Reference price</b>              | 100% of the participants made a choice between two products based on their specific needs of the moment. When confronted with a third product with a more convenient price 100% of the respondents did not change their choice stating that price was not a driver of choice.  | 50% of the participants made a choice between two products based on the price and 50% based on their specific needs. When confronted with a third product with a more convenient price 100% of the respondents changed their choice.  |
| <b>Time discounting</b>             | 100% of the participants accepted to have a lower amount of money immediately instead of a greater amount of money in two months. All the respondents showed a loss aversion   | 50% of the respondents affirmed that they would have preferred a larger amount of money in two months and 50% accepted the lower amount offered immediately. Those who accepted to receive the money in two months stated that for larger amounts they would have chosen to receive less but immediately.   |
| <b>Representativeness heuristic</b> | 100% of the respondents used the first adjectives presented for each character in order to express a judgement of the person. 100% of the respondents also used the first two adjectives of the list to describe the two characters.   | 100% of the respondents used the first adjectives presented for each character in order to express a judgement of the person. 100% of the respondents also used the adjective that was in the middle of the list to describe the two characters.  |

### *Personal elaboration*

This research highlights that 70% of the decisions taken by both focus groups suffered from biases and heuristics. The analysis of the answers, gestures and interactions of the participants during the focus groups clearly highlighted a sense of intra-generational unity. This common way of reacting to the test, these common cognitive processes and the explanations given to justify their choices seemed influenced by their common set of values as if the era in which they built their consumer awareness had imprinted the way they consume now and the cognitive processes that underlie to the consumption habits.

We propose a brief discussion of every bias tested in order to highlight the differences in behavior of the two generations in order to highlight also the observational aspect of the research.

**Endowment effect:** this test was conducted to understand the response to online shopping of the two generations and their risk aversion towards unknown ecommerce platforms versus well-known platforms. It clearly appeared that the Millennials were more prone to risk taking than the Generation X. In fact, even when confronted to customers' feedbacks that were highly negative for the well-known platform and highly positive for the unknown platform, Gen X members did not change their choice preferring the well-known platform. Participants of Generation X stated that they were used to buy through that platform and that they would not change, furthermore they stated that they already knew the process to buy on that platform and did not want to learn new processes.

**Framing Effect:** when the participants were asked to choose between two identical products but represented differently, 100% of the respondents from the two groups showed no preference between the two products. After showing the groups the prices of the goods (i.e same final price but with two

different discount options) 88% of the Generation X respondents and 100% of GenY respondents chose the product with the initial higher price stating that the higher price was a reflection of the superior quality. This leads the observers to deduct that both generations give a high value to quality or at least perceived quality and that they apply the price as a benchmarking tool for quality.

**Anchoring heuristic:** to each group two questions were asked on a geography topic. The questions were not related, hence knowing one answer would not facilitate the response to the other question. 100% of the respondents from Generation X and Millennials, leveraged the answer to the first question in order to answer the second question. This proves that all the participants in Generation X and Millennials cohorts were subject to the anchoring effect. Anchoring and is the tendency of subjects to be influenced by a reference point. Anchoring processes relies on the definition of Ecological rationality (i.e., the ability to exploit the structure of the information in natural environments; Gigerenzer et al., 1991) which may involve also some personality dispositions. On the other hand, an effect such as anchoring cannot be explained only by individual differences, but also by other general knowledge (Blankenship et al., 2008), expertise about the topic used to test the bias (Wegener et al., 2001), mood, self-regulation (English and Soder, 2009) and in general by generational characteristics.

**Reference price:** to conduct the test, participants were asked to choose between three popcorn baskets, sized small, medium and large. These three baskets had three different prices and participants were asked to pick the basket that mostly would have satisfied their needs to eat popcorn while watching a movie. 100% of the participants in Generation X focus group made a choice between two products based on their specific needs of the moment asserting that price was not a driver of choice. Instead, 100% of the Millennials participants made a choice between the products based on the economic advantage of the price/quantity ratio. This means that Generation X has a much higher reference point bias, that is a useful concept to explain why people focus on reference points without considering alternatives; reference points and all subsequent thought allow economizing cognitive resources compared to alternative strategies that require more computationally taxing operations (Ceschi et al., 2019).

**Time discounting:** participants to the focus groups were asked to choose between two types of rewards for their participation to the focus groups, 25 euros on Amazon bonus delivered immediately or 35 euros Amazon bonus delivered in 50 days. 100% of the participants in Generation X focus group accepted to have a lower amount of money immediately instead of a greater amount of money in a future time span. Instead, 50% of the Millennials respondents affirmed that they would have preferred a larger amount of money in two months. It appears that Generation X is characterized by an avoidance orientation of losses that leads to more biased decision. The feeling toward wasting is strictly connected

to a sense of guilt regarding the violation of a No-Waste heuristic whilst Millennials seem to be prone to risk taking with an opposite attitude or an overly optimistic view of the world.

**Representativeness heuristic:** this test consisted in presenting the focus groups with two different individuals. These same set of adjectives to describe the individuals was used but was presented in mixed order for each individual. 100% of the Generation X and Millennials respondents used the first adjectives presented for each character in order to express a judgement of the person. These biases appear to be dependent on using information that is recalled easily and relevant for comparative judgments. It appears that these biases affect the two generations in the same way as no difference in the responses was found.

In conclusion, building on the consumer bias theory and the generational theory, our research demonstrates that Generation X, when confronted to online shopping, suffers from an endowment effect that appears to be characteristic of this generation. The adversity to risk taking, the attachment to the well-known brand and the distrust towards the internet leads this generation to sub-optimal decision making. Generation Y, by being technologically savvy, less brand driven and more oriented to deal-making appears to be prone to risk taking to maximize the return on the choices made.

## CONCLUSIONS

This study, by leveraging the extensive literature review on decision-making heuristics (Arnott, 2006; Carter et al., 2007; Ceschi et al., 2019; Gigerenzer and Gaissmaier, 2011; Kahneman et al., 1982) and biases and leveraging the generational theories (Amplitude, 2009; Anderson et al., 2018; Giovannini et al., 2015; Greenberg, 2011; Howe and Strauss, 2007), aims at shedding light on the different impact that heuristics and biases have on Generation X and the Millennials in order to identify a phenotypic structure of decision-making proper to each Generation. Existing literature has focused the research on the study of heuristics and biases in isolation from others, suggesting the stable and reliable individual differences in rational thought (Ceschi et al., 2019). Our research fills the gap identified in the literature by putting into comparison two Generations and aims at demonstrating the existence of intra-generation similarity in performance suggesting a similarity in decision-making skills of each generation.

From our perspective, the understanding of the difference in behaviors and the differences in the reaction to biases and heuristics of different Generations, represents an essential condition for designing and implementing successful marketing campaigns. Studying cognitive biases and heuristics highlights the importance of a different perspective in the segmentation models. This research can be particularly appealing to practitioners since it allows a different point of view on the identification of the target market based on simple test that can be iterated. The study of the impact of heuristics and

biases in decision-making processes can lead to the promotion of programs designed to promote a debiased decision-making helping individuals or practitioners to have a better impact on real-life decisions.

Although these results are promising, we must acknowledge several limitations that could represent the focus of future research. First, to reduce participant burden, the biases and heuristics studied were limited to a small set. This limits our ability to generalize the results to an entire cluster such as the two generations.

Second, present literature indicate that the characteristics and behavior of Millennials might be difficult to distinguish in comparison with older cohorts, because of their young age (Howe and Strauss, 2000), and several studies outline that Millennials should not be considered as a homogeneous group (Foscht et al., 2009). The “Myth” of Millennials homogeneity and distinctiveness (Henderson, 2010) may be determined by the choice of specific groups as populations of study – such as college students (Bakewell and Mitchell, 2003; Beard, 2003; Cowart and Goldsmith, 2007), and by a cohort-level comparison with other generations (Loroz, 2006; Moore and Carpenter, 2008; Pitta and Gurău, 2012)

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# CAN SOCIAL RESPONSIBILITY AND CIRCULAR ECONOMY BE CONSIDERED DRIVERS OF CORPORATE SOCIALIZATION?A

## RESEARCH ON ITALIAN SMES

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### ABSTRACT

In management studies, social innovation refers to two new foci. The first one considers the firm as a network of social relations and as a community member in which technological and administrative changes are just one part of the innovation picture and, the institutional and social being fulfils equal importance.

The second refers to social and environmental commitments that increasingly reflect a pure marketing strategy to better firm reputation.

The original objective of this paper is to join the two foci by means a literature review and a framework arguing that the social values, the related mission, the Circular Economy (CE) culture and the Corporate Social Responsibility (CSR) models can be useful to achieve social ends without neglecting the marketing strategies.

On these methodological bases, the paper presents a research carried out on desk on nine Italian food industry Small and Medium-sized enterprises (SMEs).

The study findings highlight a limited awareness by corporate of their social role that highlights lacking declared social goals. Moreover, social and circular economy values and Agenda 2030 goals are vaguely claimed in the corporate missions that it is characterized by a strong reference at low production impact on the environment, at workers safeguard and for customer satisfaction.

Finally, although the paper shows some limitations in the research, it contributes to developing the scientific literature overcoming the Elkington triple-bottom-line model and, for managers and practitioners, focusing on the firm social role being regardless profit or no profit.

*Keywords: Social Innovation; Social Entrepreneurship; Corporate Social Responsibility; Circular Economy; Sustainability.*

## INTRODUCTION

Research on social innovation has gained momentum over the last decade, spurred notably by the growing interest in social issues related to management, entrepreneurship, and public management. Nevertheless, the boundaries of social innovation processes have not yet been completely defined, leaving considerable space for contributions to both theory and practice.

A variety of life-spheres and academic disciplines have taken on board the concept of social innovation. Social innovation is becoming a hot topic in management studies where it refers to two new foci. The first one gives more attention to the social character of the firm: the firm as a network of social relations and as a community in which technological and administrative changes are just one part of the innovation picture, the institutional and social being of at least equal importance. The second concern, which is to let firms play a more active social role in society – discursive or real (Murray, 2010; Cajaiba-Santana, 2014; Tarde 2009; Altuna et al., 2015).

The paper tries to join the two foci by means a literature review and a framework arguing that the social values, the related mission, the circular economy culture/processes and the CSR models can be useful to achieve social ends without neglecting the marketing strategies.

In contemporary literature, Schumpeter and Weber are cited regularly by authors seeking to legitimize social transformation in organizational structures, in both business and public administration, where principles of social innovation are actively applied. In this literature building, cannot miss Benjamin Franklin, who perceived social innovation as the solution to specific life problems (Mumford, 2002).

On these bases, social innovation stresses the emergence and implementation of new ideas about how social and economic actors should organize interpersonal activities, or social interactions, to meet one or more common goals. As with other forms of innovation, results produced by social innovation may vary about breadth and impact (Dufays, 2019).

These results could contribute to improving social capital which would allow economic organizations either to function better or to change; this would produce positive effects on a social level in both the profit and non-profit sectors, including economic aspects of human development, as an ethical and stable entrepreneurial culture. Regarding that, the authors will pay attention to the contribution that circular economy culture and processes implementation could give both to the CSR commitment for the business ends reaching by means a better reputation and in reaching of various Agenda 2030 goals as social ends.

Therefore, social innovation has to be seen to be aimed at “the development of what is currently viewed as assets for Sustainable Development Goals (SDGs) of the Agenda 2030 reaching (Dro and Therace, 2011).

The socially responsible behavior shown by CSR tools often reflects a pure marketing and communication strategy in the sense of 'make the firm look more socially responsible to better its reputation and growing revenues' (Howaldt and Schwarz, 2010).

This behavior increasingly stands for a real alternative at the diversity of 'Corporate Social Responsibility' aimed for ecologically and socially sustainable outputs and production models.

Thus, this work presents a research paper to contribute to this still-gaunt topic for a better theoretical and conceptual understanding of the social innovation phenomenon with a focus on relations between circular economy principles, CSR aims and social ends. Moreover, it feeds current debates on social innovation, reviewing the extant literature to clarify its meaning and analyze its connections with CSR increasingly considered as a strategy for creating economic value (Howaldt and Schwarz, 2010; Sila and Cek, 2017)

First, the paper shows a social innovation literature review to argue that it is related to collective actions aiming at a social change. Secondly, it employed literature on the CE and CSR to define social innovation as an engine of change that does not negate competitive challenges to support firm survival but considering them as a means to reach social ends. Thirdly, we discuss the insights from research on desk carried on about nine Italian agri-food firms, offering a framework that interprets relations between values, mission and circular economy process, CSR and social ends. The paper concludes with a summary that can provide ideas for future research (Chatzoglou et al., 2017).

## **RELEVANT LITERATURE IN SOCIAL ENTREPRENEURSHIP**

As regards the scenario just presented, the authors consider worthwhile discussing the "enterprise socialization" matter. Are there any differences between "enterprise socialization" and "social entrepreneurship"? The discussion around this matter is ongoing and, in this paper, the authors will try to give their contribution.

Social entrepreneurship (SE) emerged as an important means by which teams and individuals are meeting the social and environmental needs of society by developing economically viable organizations (Czinkota et al., 2018).

In this way, we can outline an answer at the question arguing that, just as traditional entrepreneurship is essential for economic growth and social survival (Javed et al., 2018) also social entrepreneurship (SE), containing the same genes as of other entrepreneurship, is essential for the economy.

Therefore, one of the important objectives of firms exclusively committed in social initiatives is to achieve organizational sustainability. However, these organizations face the problem of shortage of funds, so they need to shift to commercial activities to generate necessary financial resources (Defourny and Nyssens, 2010). This has resulted in the emergence of social enterprises as independent

entities focusing both on social and economic motives (Chell, 2007; Santoro et al, 2018)). However, to achieve sustainability, these organizations need to move from the concept of “cost recovery” to “more than cost recovery” and to become a self-sustained social organization (Yunus, 2007).

In the case of social enterprises, this can cause mission drift as social enterprises are hybrid organizations with the social and commercial mission at their heart. Thus, for continuously creating social value and social impact, social enterprises need to sustain their organizational existence through economic development (Wu and Si, 2018). Furthermore, in literature, several key factors for social enterprise sustainability are discussed like social innovation (Edgeman and Eskildsen, 2012), networking (Meyskens et al., 2010), commercial growth (Chell, 2007), managerial expertise (Roy and Karna, 2015), human resource (Jenner, 2016), and other organizational resources (Doherty et al., 2014). More recently, to create jobs and fight social issues, governments are also stepping up to support enterprises that add at their economic ends also social interests (see laws that consider “for benefit corporation” in Us and Italy) (Czinkota et al., 2018).

Authors like Murphy and Coombes (2008), and Weerawardena and Mort (2006) argue that the difference between social enterprises and profit-oriented ventures lies in their motives, cultural values and mission.

Entrepreneurial Social values and their related mission make enterprises an agent of change (Barendsen and Gardner, 2004), defining it, in this way, as any innovation in process, product, technology and networking that is essentially focused on meeting social needs.

Regarding networking capabilities, according to Granovetter (1985), economic activities of enterprises are embedded in social networks which make them crucial for organizational survival and growth.

Therefore, in the firm survival process, networking and reputation create an idiosyncratic and non-substitutable social resource (Czinkota et al., 2018). In this view, networks work as a catalyst for the sustainable development of enterprises and their ecosystem composed by social and economic stakeholders. Entrepreneurs are using networks for getting information, resources, help, spotting opportunity, advice, knowledge about markets. On the other hand, social networks also create an ecosystem where network partners can learn from each other hence, contributing to the sustainable development of the organization (Vrontis et al., 2020).

## **CIRCULAR ECONOMY AND CORPORATE SOCIAL RESPONSIBILITY IN A SOCIAL INNOVATION VIEW**

The CE in corporate culture and in its social ends is still prevalently overcome by competitiveness and profits aims. This condition lead to obstacles which prevent the transition to a "circular" logic of the

economic-ethical model linked also to successful strategies that are fundamental for a competitive company (Granovetter, 2018).

Companies contributing to the transition to a CE are considered the future of the economy and ensure a healthier environment. Lack of information on the real CE benefits, very often, generates social tensions in place where the company works, especially for those that deal with waste, reuse, recycle. People involved in these activities are often considered a threat to the territory (making the business to detriment to the environment). This lack of reputation of the CE company creates a major obstacle to the transition from a linear to a circular economy and also a degraded socio-economic environment (Michelini et al., 2017).

Goldring (2015) defines the company's reputation as the fundamental image that the company conveys, both directly and indirectly, to its customers, its stakeholders. CSR practices are not only an economic commitment but a real strategy geared towards the company's reputation improvement including ethical, social and environmental, which requires an adaptation of processes, resources, skills and factors of competition. In the light of these considerations, emerges a framework in which CSR is considered as a construct capable of explaining the connection between circular economy and corporate reputation. CSR practices are necessary to support companies within their local area and as behaviours aimed to optimise their work as an active member in the transition to a circular economy. In the last decades, increasingly companies implemented circular economy behaviours in values and related mission (Ruiz Malbarez and Romero Gonzales, 2011).

Therefore, the relationship between a company mission, committed to reach its profit with positive impacts in terms of Agenda 2030 goals, cannot ignore circular economy values as an alternative to the current linear system, which privileges waste to the detriment of the environment and society.

Therefore, CSR and CE can represent an "economic ethic" that produces different results, from strictly economic individual interests, in which relationships between needs, values, actions and institutions belong to a much broader field (Velenturf et al., 2019).

Regarding that, authors argue that the policy for the transition to a circular economy takes into account economic rather than social aspects and 'that business support should be derived from a broader understanding of the role of business in society. The different motivations and willingness of business leaders to engage in a circular economy should be further examined with results that will feed into broader and more inclusive business support guidelines to accelerate the transition to a circular economy in the future" (Ellen MacArthur Foundation, 2015).

The circular economy model that also takes social aspects into account can benefit from certain advantages such as: "...taking a holistic view by creating environmental quality, social equity and economic prosperity for current and future generations..." (Kirchherr et al., 2017). Regarding to social

equity, while the circular economy places emphasis on process redesign and the materials cycle and can contribute to more sustainable business models, encapsulating tensions and limitations, these models show an absence of the social dimension in sustainable development limiting, in this way, its ethical dimensions and some unintended consequences (Murray et al., 2017).

CE needs to pay more attention to strategies for social and institutional change to make more accessible production process upstream and consumption. Most scholars on CE are interested on the dynamics and strategies of material closure cycles, without considering the slowdown in the production cycle. This scientific trend requires a clear stance to abandon the old consumption and production patterns of the linear economy (Merli et al., 2018).

The model promotes the transition from quantitative to qualitative growth that can lead to the implementation of new innovative business models (Zott and Amit, 2010) by enhancing productive, financial and social capital (Geissdoerfer et al., 2018).

These innovative business models carry on principles of sustainability in every process in order to achieve sustainable and at the same time circular business (Skene and Murray, 2017).

To reach these transition objectives needs of an holistic collaboration of many figures such as: workers, consumers, suppliers, institutions, trade unions, public administrations, so that new professional figures can be created news skills (Deschenes, 2015).

In this view, the present paper considers CSR model as an operative process useful to support companies both to reach social legitimation and grow its reputation aimed to increase competitive capabilities (Friedman, 2007).

Through internal policies with a lower environmental impact, a reduction in internal costs can be achieved with benefits also for the budgets. Implementation of occupational safety systems that exceed the standards required by current legislation can, for example, improve the worker health with positive effects on the working environment and the quality within the company.

Therefore, in the current saturated marketplace there are, increasingly, fewer differentiation factors against the competitors. Companies who do not take account of the increasing importance of their social roles may not survive, in the similar way of the companies that fail innovations.

According to Van Marrewijk (2003) "... in academic debates and business environments hundreds of concepts and definitions have been proposed referring to a more human, more ethical, more transparent way of doing business. This point in time is important if a not critical moment in the development process of new generation business frameworks facilitating sustainable growth...".

The development of the concept of CSR and the need to rethink innovative organizational models combines several aspects useful to contribute to the change of management systems and the improvement of business performance (Popa, 2015).

Regarding that, Barrena-Martinez et al. (2015), define “...the bibliometric analysis conducted by Dahlsrud highlights that all of the definitions set up until this year have three points in common: the importance given to the stakeholders; the voluntary degree of CSR actions by companies and the reference to these actions representing a set of social, economic and environmental obligations, and the association of these commitments with sustainable development...”.

In the last decades, one of the CSR main application is to strengthen corporate reputation and establishing good corporate practices. This behaviour is brought about communication activities leading to a rethink of doing business (Birim, 2016). Therefore, this characteristic made authors analyze companies' CSR behaviors as a tool to support corporate reputation development.

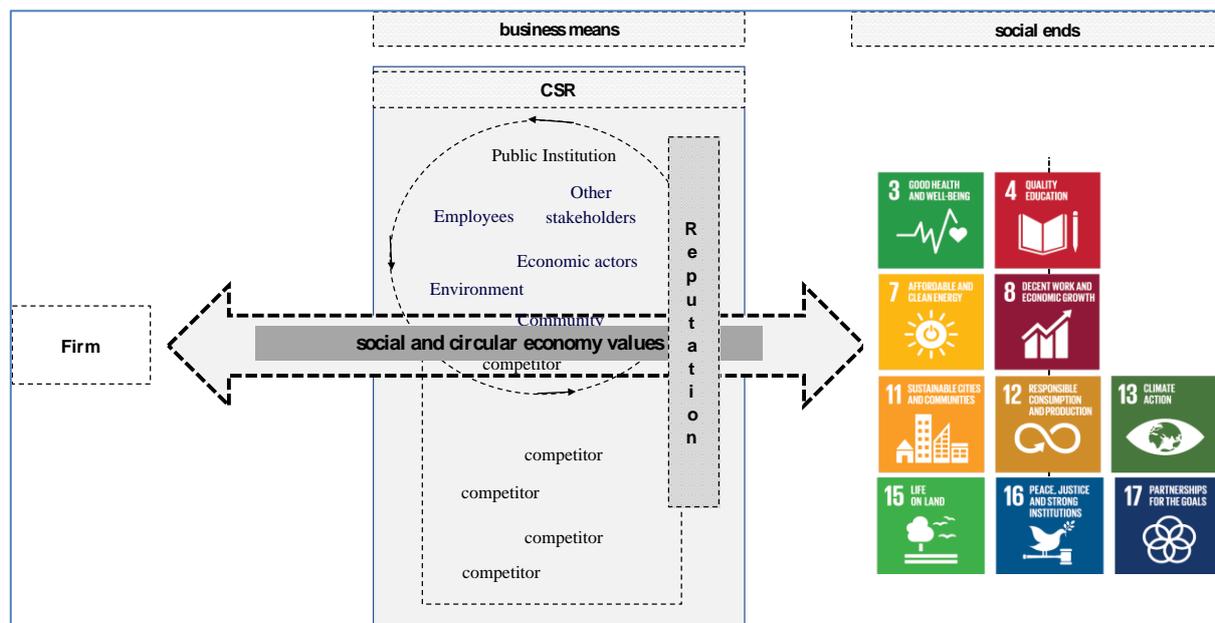
**FRAMEWORK**

The focus on social issues has allowed a paradigm shift from the so-called profit logic based on profit maximization strategies to social ends through business means (Reiter, 2016).

The survival of a company is linked to economic means that support growth, social and sustainable development (Manasakis, 2018).

Regarding that, the authors present a framework in which ultimate goals company are characterized by Agenda 2030 goals and reached by means numerous and heterogeneous marketing activities based, also, on CSR behaviors communication (Czinkota et al., 2019; Idowu and Filho, 2009) (see fig.1).

Figure 1. Relations between entrepreneur social values, mission, business means and social ends.



Source: Authors' elaboration

Regarding the figure above, the OECD defines corporate social responsibility through guidelines for multinational enterprises "as channels of communication and innovation, development and transfer of knowledge in the context of investments in sustainable development" (Fiandrino et al., 2019).

Regarding that, Porter and Kramer (2011) argued that to help companies in this growth, it is necessary that CSR can also lead to the benefits of competitive advantage and shared value creation through guidelines that help companies to increase practices of social responsibility.

In this scenario, the authors introduce a framework to show that a firm with social values and aims has to be supported by competitive behaviours.

In a social innovation context, the adoption of circular economy values and processes could lead to multiple benefits with an improvement in the economic value chain and in social impacts (Arfaoui et al., 2019).

## **METHODOLOGY AND RESEARCH HYPOTHESIS**

The objective of this research is to investigate how social values and related mission, Circular Economy processes and CSR adopted by SMEs represent means to reach final social results without to neglect competitive behaviours.

Therefore, the authors try to verify the existence of the following hypothesis:

*Hp1: Are there relations between mission declared and social ends claimed?*

*Hp2: Is CSR prevalently considered as a communication tool to better corporate positioning in target perception?*

*Hp3: Are there relations between CE principles applied, CSR behaviours and social ends reached?*

To reach these scientific aims, the authors carried out a multiple comparative analysis of nine SMEs in the food sector that have adopted the CSR model in Italy. They examined both the mission claimed and CSR reports to evaluate if SMEs behaviours are based on social values and circular economy principles.

Moreover, they analysed behaviours claimed about governance, workers, community and environment to evaluate if the firms considered in mission definition some ends ascribable to Agenda 2030 goals.

The document adopts a qualitative methodological approach based on the protocol for the study of a descriptive case defined by Yin, 1994, 2009. The documents and information were selected through and related links and the documentation published on company websites and the social reports. Other information was found analysing their activities on social media, official annual reports and Aida Bureau Van Dijk database. The target was selected through company websites research and was taken as a reference for research in the "food" industry.

The companies selected for multiple benchmarking are: Fugar S.p.a., Giacinto Callipo Conserve Alimentari S.p.A., De Matteis Agroalimentare S.p.A, Sabelli S.p.A., Villa degli Olmi San Matteo Tenuta Altavilla S.p.A, Villa Caplet S.r.L., Lattebusche S.c.A., Grandi Molini Italiani S.p.A, Poiatti S.p.A.. The study led to the evaluation of company activities and their implications and limitations for social issues.

## RESULTS AND DISCUSSION

The multiple comparative analysis was carried out on nine Italian SMEs operating in the "food" industry. There were analysed the following variables: mission, governance, workers, community and environment (see Table 1 and 2). Successively, the authors contextualize variables analysis in the research hypothesis to define a "social" company profile.

Table 1. *Enterprises examined*

|   |  |
|---|--|
| Fugar S.p.A.  | It is based in Verucchio (RN) with two other offices in Rimini. The reference sector is the production and sale of semi-finished products for pastry and ice cream. Fugar Commerciale specializes in decorations for pastry, catering and ice cream parlours. The Coronelli brand was founded in 2007 and with it Fugar is aimed at consumers offering high- quality products (spreads and liqueurs). The outlet markets are represented for 70% by the national market and the remaining 30% by the world market.       |
| Giacinto Callipo S.p.A.                             | The company is based in Maierato (VV). It produces and sells gut, roe, freshly processed tuna, yellowfin tuna fillets, mackerel fillets, anchovy fillets. The products are marketed on the national territory 7% of the total turnover is absorbed by the markets such as: Canada, Austria, France, Switzerland, Australia, Slovenia, USA, Lithuania, Great Britain, South Africa.   |
| De Matteis Agroalimentare S.p.A.                    | The company is based in Flumeri (AV). It produces durum wheat flours, conventional dry pasta, egg pasta, and vitaminized pasta. The markets to which it is addressed are mainly foreign suchas: USA, United Kingdom, Europe, Japan, Arab countries where about 60% of the production is exported. The restis marketed in Italy through large-scale retail trade and retail distribution. The brands owned by De Matteis Agroalimentare are: Pasta Armando, Baronia and Donna Vera  |
| Sabelli S.p.A.                                      | The company is based in Ascoli Piceno (AP). It produces and markets milk and dairy products. Its reference markets are central and northern Italy. 1% of its turnover is exported to France and Austria. It has as its customers mass retailers such as Coop, Conad, GS, SMA-Rinascnte, Auchan, Carrefour, PAM etc., wholesalers of dairy products and the Ho.Re. Casector (hotels, restaurants and catering).   |
| Villa degli Olmi San Matteo tenuta Altavilla S.p.A. | The company is based in Creazzo (VI) and sells its products mainly in Italy to the large-scale retail trade. The vineyards are productive since 1996 and converted into organic farming. The new headquarters was built following aesthetically the canons of typical Venetian buildings, enhancing the area with a building of architectural value. The wine-making cellar penetrates deep into the ground to exploit the geothermal characteristics of the subsoil. The wooden barriques are inside underground cells. |

|                      |   |
|----------------------|---|
| Villa Caplet S.r.L.  | The farm is located in Isola Della Scala (VE). It grows vines trying to improve quality with innovative and natural technologies and covers 21 hectares. It won the bronze medal for being the first company in Italy for the creation of braille labels. They are made with a new technology of silicone paint that in addition to functionality greatly attracts the attention of the consumer. As a result of this new creation of labels has achieved an increase in sales of 12% and 8% in customer share. |
| Lattebusche S.c.A.   | The company is based in Busche Cesiomaggiore (BL) and is one of the largest cooperatives operating in the dairy sector in Veneto. The company's policy is oriented towards customer satisfaction and to combine respect for dairy traditions with technological updating of production facilities. The strength of this business vision is translated into the market with products of excellence recognized and appreciated by many Italian and international consumers.                                       |
| Grandi Molini S.p.A. | The company is based in Rovigo. It produces soft and durum wheat flour. It is a leader in all markets where it is present with over 4,000 customers. Grandi Molini Italiani, an Italian milling group that has chosen to expand its range of products from kamut to organic flour, from adjuvants to improvers, from semi-finished products to extra virgin olive oil, from semolina pasta to egg pasta, from gnocchi.  |
| Poiatti S.p.A.       | Poiatti, "inimitable since 1946", produces and markets more than 100 different formats of pasta: durum wheat semolina, whole semolina and now also organic.   |

Source: Authors' elaboration

Table 2. Companies areas examined

| Company      | Mission   | Governance   | Workers   | Community  | Environment   | Agenda 2030 goals |
|--------------|---|--|---|--|---|-------------------|
| Fugar S.p.A. | ... The Social Responsibility is the basis of what we are, we think and we do.<br>Our Mission is to spread our philosophy based on Quality, without making compromises, always working in a ethical and responsible way, with coherence and in accordance with people that work with US and first of all with the consumer, putting all | Customer satisfaction and the quality of its purchases are a fundamental element for the company. To achieve this goal, it carries out questionnaires and telephone surveys also through the so-called "satisfaction tree" that allows the company to identify critical issues and apply appropriate measures to | It organizes training and courses for its staff. Monitors conditions of the working environment with regular tests and meetings with managers | It organizes extra-company activities collaborating on social projects such as the "Children of the World" for children with a difficult childhood and supports, through charity auctions, shelters in Boliva. It promotes sports projects for children in the local | Reuse, reduce, recycling.<br>Separate waste collection.<br>Internal use of recycled paper, use and disposal of cartridges for remanufactured printers, recycling of plant water, energy saving, use of anti-pollution anti- | None              |

|   |  |   |
|---|--|---|
| Sabelli S.p.A.  | De Matteis Agroalimentare S.p.A.   | Giacinto Callipo S.p.A.   |
| <p>A large company that after almost a century of activity maintains a spirit of family business, with an attention to artisan quality and dairy tradition.</p> <p>The goodness of the products always combines with corporate</p> <p>It implements policies of transparency towards consumers. For two consecutive years, 2018 and 2019, it won the Best Managed Companies Award promoted by Deloitte".</p> <p>Use anonymous questionnaires to verify company performance and improve business areas. It periodically organizes a "Sabelli</p> <p>It welcomes groups for visits to the company. He carries out didactic projects for elementary and nursery schools. It promotes distance adoptions and sports</p> <p>Reduction of the processing by-product. Reduction of water and energy consumption. PDO and PGI certifications.</p> | <p>Our pasta is expression of an integrated system between Industry and Agricultural sector on the basis of shared values and principles.</p> <p>Implementation of an integrated quality, environmental and ethical policy for customer satisfaction, product quality and hygiene. Creation of a high-tech company structure. Since 2016, it has a voluntary scheme certification SA 8000 for compliance with the requirements established at international level.</p> <p>The company has a particular focus on the needs of its employees and their professional growth. It safeguards ethical principles and health and safety in the workplace in compliance with ILO regulations.</p> <p>The Company promotes donation activities, through the campaigns of AIL and AISLA. As part of the Pasta Armando brand, the company also provides a scholarship for one of the members of farms belonging to the supply chain to participate in a master's degree.</p> <p>Environmental reduction and energy consumption and waste reduction</p> <p>Reduction of CO2 emissions. Reduction of plastic in packaging through the use of innovative materials.</p> <p>Construction of a cogeneration plant capable of producing</p> <p>None</p> | <p>The Company Management undertakes to make its corporate policy available to employees, collaborators, customers, suppliers and the public, committing itself so that it is adequate and proportionate to the nature and impact of its activities.</p> <p>The company joins the program "Dolphinsafe" for the purchase of tuna only from vessels that adopt sustainable fishing practices. As part of the project dedicated to Corporate Social Responsibility, coordinated by the Ministry of Labour and Social Policies, the company was selected and included in the</p> <p>The company attaches particular importance to the professional growth of the worker. It periodically organizes training and courses.</p> <p>The company pays particular attention to disadvantaged groups. It has invested human and economic resources for the creation of a team of volleyball Tonno Callipo. It welcomes school groups and organized groups. Video project Web series</p> <p>Reuse, reduce, recycling</p> <p>Reduction of costs related to the use of water resources and the use of energy-saving lighting, reduction of packaging. ISO 14001-BRC certification.</p> |
| 7   |  | 7-12-14   |

|   |  |  |
|---|--|--|
| LattebuscheS.c.A.   | Villa Caplet S.r.L.  | Villa degli Olmi San Matteo Tenuta Altavilla S.p.A   |
| The enhancement of local milk, the typical products obtained from it, with respect for the environment, with a view to sustainability and social responsibility in the exercise of agricultural activity. | Its primary mission is transparency, quality and the guarantee that it wants to transmit to the consumer. It makes its product accessible to a disadvantaged social category.  | Despite the growth, the care, attention to the quality of the products and the passion for wine and the territory never failed.  |
| The company is oriented towards customer satisfaction and to combine respect for dairy traditions with technological updating of production facilities.   | Its primary mission is transparency, quality and the guarantee that it wants to transmit to the consumer. It makes its product accessible to a disadvantaged social category. Following this social initiative, the press has recognised the | In 2008 the company won the "Sodalitas Social Award". Italsowon the "Azienda Sana 2004" Award, the "National Award on Social Responsibility of the City of Rovigo in 2005", the "Unioncamere 2006" Award in the Human Resources category, the "Ethic Award 2006" Award organized by KPMG and GDOWEEK. In 2004, it was the first winery in the world to obtain SA 8000 certification. |
| The company believes that safety in the work placeis the most important factor. The company buys material, even if not compulsory, to meet the health and   | Collaboration with employees and in compliance with ethical values.  | The company has a particular focus on the safety and health of its workers and on the compliance of its environments. In 2016, the company obtained OHSAS 18001:2007 certification.  |
| Events and guided tours of the company. Donations of medical equipment for hospitals. Collaborations with voluntary blood donor associations  | It donated part of the proceeds to the Italian blind association for the opening of a free consultancy centre for the prevention of blindness. He has created a back label for transparency and  | San Matteo has built a golf course in the municipality of Creazzo where it has its headquarters. Realization of public works including the renovation and extension of a nursery and the arrangement of a parking lot in a university area.  |
| The company is ISO 14001-certified. ISO 22005- BRC/IFS  | Organic certification DOP and IGP certification.   | The company is ISO 14001 certified and uses 100% recyclable containers, energy recovery processes and water monitoring. Reduction of noise and environmental pollution. Thermal energy recovery through closed circuit recirculation. The company is BRC/IFS certified. Aluminum, iron, and plastic caps are delivered to voluntary  |
| 7-12  | 1-12   | None   |

|                      |   |  |   |   |   |      |
|----------------------|---|--|---|---|---|------|
| Grandi Molini S.p.A. | The future begins today. We at Grandi Molini Italiani are aware of the importance of educating our children on the value of healthy eating. This is why we are committed to promoting food culture, bringing it to schools of all levels and opening our doors to | The Company policy of transparency and loyalty of employees and consumers. It has obtained the SANA company recognition promoted by the Regional Department of Health Policies of the Veneto Region. | The company places particular emphasis on the safety and health of workers. | The company has trained more than 190 pizza instructors through courses organized by Pizza News School Grandi Molini Italiani, and didactic projects. | ISO 14001-Haccp- Brc- Agri-quality and organic certification, Kasher certification; Coop qualified; Certification Columbus. | 4-12 |
|----------------------|---|--|---|---|---|------|

*Source: Authors' elaboration*

*Hp1: Are there relations between mission declared and social ends claimed?*

In the community area, some companies declared to be active in promoting social projects to local communities located, also, in disadvantaged areas of the world. Attention to social issues is very low, in that few cases, in mission areas, is declared that social efforts are aimed to safeguard local industry creating specific networks to support the country of origin economic conditions.

Moreover, some companies claim their social commitment through initiatives such as donations, distance adoptions, the granting of scholarships to encourage culture, sports initiatives and the promotion of educational and training courses in local schools. Finally, three of the companies examined, in their mission, declare none social ends focusing their attention only on consumer satisfaction. These last cases confirm that CSR policies were applied as marketing and communication tools to better company reputation against competitors. The other six companies show in their mission and values declared that their behaviours are also aimed at reaching at least an Agenda 2030 goal.

*Hp2: Is CSR prevalently considered as a communication tool to better corporate positioning in target perception?*

The multiple comparative analysis revealed that firms examined pay attention to their customers and suppliers satisfaction, also through the use of questionnaires to verify any critical points in their relationships. Therefore, firms declared to pay particular attention to privacy management, the adoption of ethical and environmental codes and quality policies, transparency and information clarity. In the workers' area, companies' policies are focused on health and safety in the workplace, adaptation and healthiness of the premises, and on employees' professional growth through training courses.

Finally, in the environment area, all companies have shown a strong inclination towards sustainability matters. This is demonstrated by the numerous certifications both in the environmental and agri-food sectors.

*H<sub>p3</sub>: Are there relations between CE principles applied, CSR behaviours and social ends reached?*

Moreover, from a circular economy point of view, there is a trend to practices of recycling of water resources used, to techniques of waste reduction and to measures adoption for reduction of energy and plastic used for packaging during the production process. This trend is communicated in CSR reports but is not considered in social impact terms.

## **CONCLUSIONS, LIMITATIONS AND FUTURE IMPLICATIONS**

The present paper wants to represent an advancement of the scientific trend on company social sustainability and its social roles. Particularly, the paper overcomes Elkington triple-bottom-line model, highlighting that sustainability and responsibility concepts are not sufficient goals to company survival if they are aimed only at the business ends. Therefore, the authors argue that company survival could be lasting if it will be based on its economic aims to reach final social objects.

The comparative analysis presented shows that although they have a predisposition at the level of corporate policy to pay attention to sustainability and to the practices of attitudes of programs to reduce pollution, waste and water resources used, the companies do not fully show social and values commitment.

Therefore, the research insights highlight a prevalent focus on consumer satisfaction, that we could consider as a mere means to reach a better market positioning, and a lacking attention to social ends both in mission claims and in final aims.

Moreover, the paper tries to give a contribution to scientific and practitioner fields showing that companies, both profit and no-profit, are increasingly community members and social actors setting forth this role, reaching the social legitimation, claiming and planning their social ends-commitment.

The present work contributes directly to the body of knowledge on social innovation compared with CSR and circular economy, as possible enabling factors for the development of Agenda 2030 17 goals.

Policy makers and managers in CE development policies and CSR models should transform CE principles in corporate culture values.

This effort should give contribution to create corporates with CE values and, increasingly, social actor committed in Agenda 2030 goals achievement.

The limitations are mainly related to the limited target and sector, for this reason the authors consider the proposed study as a first step to define a comprehensive model.

The future research steps could concern the qualitative analysis to verify the firm social value level in the mission implemented in daily behaviors. Moreover, it could be useful to carry out a SROI (social return on investment) analysis evaluating firm social impacts and noticing future scientific interests.

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# THE INTERRELATION BETWEEN HOUSEHOLD INCOME AND EXPENDITURE IN THE CONTEXT OF ACHIEVING SUSTAINABLE DEVELOPMENT GOALS: FEATURES OF UKRAINE

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## ABSTRACT

The household income and expenditures as an important indicator of the sustainability development of any country. The monitoring of the households state allows determining the power of the regional development and the success of achieving the sustainable development goals at the territory. The purpose of the study is to develop a system of indicators for monitoring the state of Ukrainian households, aimed at determining the sustainability level of regional development. The main goals of sustainable development, the success of which can be studied based on the state monitoring of households, are identified in the paper. The modern global trends of the state, size, and finances of households are analyzed. Sustainable development objectives and indicators for monitoring the state households, which are likely to be used to establish the success of these tasks at the regional level, were identified. The classical econometric methods and models were used in the paper to determine the success of achieving the sustainable development goals of household income and expenditure. The theoretical significance of the study is that taking into account the results of monitoring household incomes and their impact on the sustainability of social development will formulate appropriate proposals to reduce the differentiation of household incomes and ensure sustainable development. The practical significance of the study is due to the developed correlation models of household expenditures, developing practical recommendations for cost management and optimization of the ratio of income and expenditure, both by type and in the regional distribution.

*Keywords: sustainable development, household, region, sustainable development goals (SDG), household incomes, household expenditures, differentiation of living standards.*

## INTRODUCTION

The global concept of sustainable development was elaborated in detail in the declarations and reports of various international organizations, in particular, the UN and the Club of Rome. Thus, in June 1992, the need to recognize the principles of sustainable development as the key guidelines for the formation of a new society was declared. One of the advantages of the concept is the ability to align common development guidelines with the specific existing and prospective conditions of countries and regions (social, geopolitical, environmental, economic, historical, etc.).

According to the results of the UN summit, held in the framework of the 70th session of the UN General Assembly in 2015, the Development Agenda 2030 and Seventeen Sustainable Development Goals (SDG) were adopted, which are the main priorities of social development for the near future. The monitoring and analysis of the 17 SDG and 169 targets of the new agenda will be carried out through a set of global indicators. It should be noted that the UN reports on the achievement of the sustainable development goals (published for the period 2014-2016) show that the development of a unified system of indicators continues. The nowadays challenge is not only to set targets but also to develop systems of indicators that will determine the degree of progress in each of the areas. The main indicators of well-being of the nations, as well as social and economic sustainability based on household indicators, esp. state and dynamic of resources and expenditures, ratio between these indicators, structure of resource and expenditures et al.

The purpose of the study is to develop a system of indicators for monitoring and predicting the state and dynamic of Ukrainian households' income & expenditures, aimed at determining the sustainability level of regional development. Also, the structure of the household expenditures has to be explored by levels (first or primary level and second or higher level) and regions aimed on the same task. The results can be used for identifying the impact of regional progress on poverty alleviation and reducing inequalities, improving the health and well-being of the population, ensuring quality education, access to clean water and appropriate sanitation conditions.

The outcomes of the research include economic and social effects. The economic one lies in the fact that the investigated peculiarities form conditions that reduce the level of income differentiation of the population by optimizing the mechanisms of obtaining these revenues which will contribute to the reduction of shadowing in pay, an increase in official income, which together will increase the budget revenue. The social impact will manifest itself in the formation of more sophisticated social norms positively that will transform the society in the direction of common principles of social justice.

## LITERATURE

Valid formation and distribution of household income have traditionally been the basis for the stable development of any country in the course of mankind's evolution. The founders of classical Economics A. Smith and D. Ricardo believed the income distribution to be the basis for the theoretical research in political economy and significant disparities to be the main obstacle for economic development (Smith, 1776; Ricardo, 1891). In the early twentieth century due to the rapid development of the economy, this problem needed a theoretical background and relevant practical solutions. Through this century western economists (Dalton, 1920; Atkinson, 1970; Dayton, 1997 et al.) suggested substantive theoretical constructs. Having learned foreign experience of many countries regarding the dynamics of incomes, the conclusion can be drawn that a slight disparity contributes to the development by stimulating employees to provide real results for the corresponding wages and vice versa, a significant separation between social groups forms a depressive mood, causes social tension. The latter is the situation occurring in Ukraine.

Currently, there is a significant amount of research dealing with the difference of incomes ranging from small analytical and statistical reviews to the fundamental monographs. Complex research was done by foreign scholars (Tanzi, 1999; Schneider, 2005; Chandra & Yadoo, 2018; Bosch, & Kalina, 2016 et al.). Ukrainian scholars (Shubina, Miroshny, 2010; Petkova, Zagorulko, Palamarchuk, 2019) also investigated this problem. However, the studies of foreign and domestic scientists do not discuss all the existing problems that have arisen in Ukraine in the current circumstances, therefore, there is a need for further scientific substantiation of theoretical and practical bases of household income differences.

According to the UN recommendations, a household is a group of persons who have reached certain agreements among themselves to ensure their consumption. McConnell & Bru, 2003, emphasized that "...the household is the supplier of all economic resources and at the same time the consumer of the greater part of the national product". Becker, 1957, emphasizes the importance of the productive function that households perform in modern conditions. In Statistical collection "Households expenditures and resources in Ukraine for 2010-2017" (Households expenditures, 2018) defines a household as a small group of people living in one room and fully or partially combine their income and property, jointly consume certain types of goods and services. Cohabitation and household management provide for common expenditures, that is, household members must have a common budget to meet their needs. According to the All-Ukrainian Population Census: Law of Ukraine dated 19.10.2000 No. 2058-III, a household is a collection of persons who live together in one or a part of a dwelling, provide for themselves with everything necessary for living, maintain a common household, fully or partially combine and spend funds.

Yuri & Kizima, 2008, mentioned that the global indicators are designed to analyze trends towards achieving globally defined GDS by 2030 and to make international comparisons. However, such indicators are not always acceptable in the national context. The indicators for monitoring at the national, regional and local levels should be developed taking into account the capabilities of the national statistical system.

Ukraine is one of the countries that has committed itself to the transition of the economic system to the principles of sustainable development. In particular, in the document "The Strategy of Sustainable Development of Ukraine – 2020" (about "The Strategy of Sustainable Development Ukraine-2020": Decree of the President of Ukraine No. 5/2015 dated January 12, 2015) the concept of the sustainable development is defined as the basic imperative of affirming the ideas of dignity, and freedom. Sustainable Development Goals (SDGs) in Ukraine is the new system of mutually agreed management measures for economic, social and environmental measures aimed at building public relations based on trust, solidarity, equality of generations, and a secure environment. In September 2017, the Government of Ukraine presented the National Report "Sustainable Development Goals: Ukraine", which defines the basic indicators for achieving the goals of sustainable development. The report presents the results of the adaptation of 17 global GDS to the specifics of national development. Taking into account the principle of "leave no one behind" and using a wide range of information, statistical and analytical materials, a national system of GDS was developed (86 development objectives and 172 indicators to monitor their implementation).

The success of the implementation of the fourteen tasks for the achievement of the GDS in the regions of Ukraine (from the above 86) can be verified using 28 quantitative indicators of the condition of the households. The information about the condition, volumes, average values and distribution of household finance provide an opportunity to conclude about the level and sustainability of territorial development. These indicators relate to 6 goals (Goal 1. Overcoming poverty; Goal 2. Overcoming hunger and developing agriculture; Goal 3. Good health and well-being; Goal 4. Quality education; Goal 6. Clean water and adequate sanitation; Goal 10. Reduction of inequality).

## **METHODS**

The classical econometric methods and models, which are a universal tool for the analysis were used in the paper to determine the success of achieving the sustainable development goals of household income and expenditure. The forecast values of the studied indicators are proposed to be obtained using the exponential smoothing method. The latter has been chosen because it belongs to adaptive forecasting models, that is, to data discounting models that can quickly adapt their structure and parameters to changes in external conditions characteristic of household income and expenditure. Along with this, to

summarize the results of the study and determine the importance of indicators, the paper uses multidimensional ranking and the method of expert assessments. The research is carried out based on statistical data of the State Statistics Service of Ukraine, Ministry of Economic Development and Trade of Ukraine, UN reports. The statistical information used for the period from 2010 to 2018 years. The retrospective information is considered both for Ukraine in the whole and in the context of 24 Ukrainian regions and Kyiv city in particular. The model of the integrated indicator of higher level expenditure was built for the paper's aim achieving. The higher level expenditure are the expenditure that don't meet the basic needs of the household, but spend for recreation, health care, education, car purchase, restaurants, hotels and savings. Also the correlation-regression models of the relationship between the total average monthly resources and expenditure of households in Ukraine, as well as between the total expenditure and higher level expenditure were built.

## FINDINGS AND DISCUSSION

The number of households in Ukraine during 2010-2018 decreased by 13.83% - from 17 million units to 14.935 million units, due to the demographic situation in the country (low birth rate, high mortality, significant labor immigration). The average household size in Ukraine during the study period ranged from 2.59 to 2.58 persons, corresponding to the European average (from 2.0 to 2.8 people). This indicator significantly different in continents as well as across countries. According to the UN (The world needs to build 2 billion new homes over the next 80 years), recent trends over the past 50 years have also shown a decline in household sizes. In France, for example, the average household size fell from 3.1 in 1968 to 2.3 in 2011, while the country's birth rate fell from 2.6 to 2.0 births per woman. For example, in Kenya, the average household size decreased from 5.3 persons per household in 1969 to 4.0 in 2014, respectively, reducing the birth rate from 8.1 to 4.4 births per woman.

The state, volumes, average values and distribution of household finances allow to conclude the level of development of the territory and the continuity of this development. So, the success is the achievement of sustainable development goals – poverty reduction – can be assessed using the following indicators: the proportion of the population whose average equivalent total expenditure per person are below the actual (estimated) cost of living; the proportion of people whose daily consumption is below 5.05 US dollars; the proportion of poor who are maintained by the state social support in the total poor population; the ratio of the levels of poverty of households with children and households without children, times; the expenditures on food in total household expenditure, etc. According to recent studies, the world as a whole is getting richer, but the main problem is the uneven distribution of this wealth, which is increasing. According to the Credit Suisse global report (Chart of the day: Which countries have the largest share of global household), during 12 months to mid-2018, the total global

household wealth increased by nearly 14 trillion USD to 317 trillion USD – a growth rate of 4.6%. Meanwhile, the average wealth rose by 3.2 percent to a record of 63.1 thousand USD per person. Now the greatest achievements in this direction are demonstrated by North America and Europe that together hold 60% of the total wealth of households, while only 17% of the world's households are located in their territory.

According to a report by Oxfam (Reward work, not wealth: to end the inequality crisis, we have to build an economy for ordinary people, not the rich and powerful), the poorest half of the world has not seen an increase in wealth since 2010. Conversely, the wealth of billionaires grew by an average of 13% - six times faster than the wages of ordinary workers, which increased by an average annual amount of only 2%.

As for Ukraine, the results of the analysis of the dynamics of the average monthly total resources and household expenditure for 2010-2018, are shown in Figure 1.

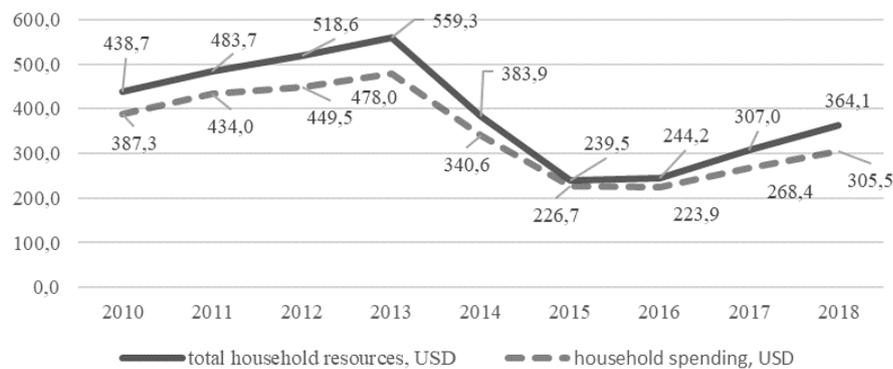


Figure 1. Dynamics of the average monthly total resources and expenditures of households in Ukraine, per household (USD).

Source: The data is from calculations by authors based on the State Statistics Service of Ukraine Statistical collection “Expenditures and resources of households of Ukraine in 2018” (Expenditures and resources, 2018)

Overall, during the period under the review, the average monthly total resources per household exceeded similar average monthly total expenditure by an average of 13.65 percent or 47.24 USD. The largest percentage difference occurred in 2012 and 2013 – 15.38% (69.13 USD) and 17% (81.35 USD) respectively, and in absolute terms - in 2018 (58.66 USD), but relative terms it was 19.2%.

The average growth rate of total household resources for the period from 2010 to 2018 years is 2.3%, with the largest growth occurring in 2017-by 25.33%, and the largest drop-in 2015 by 37.62%. The average growth rate of household spending (expenditures) is 2.92%, while the trend of intensive and slowest growth is similar to the indicators of resources +19.9% in 2017 and 33.45% in 2015. If in general to compare growth rates (falling) of resources and expenditures of households, they are jumpy, so, the income had higher growth rates than expenditures in 2012-2013; 2016-2018, more prompt rates of falling

in 2014-2015, in other periods growth rates of expenditures prevailed. Adjusting the growth rate of household resources and expenditures for the inflation index (within each year) significantly changes the picture – so in 2014 and 2015, real total household resources decreased by 22.45% and 28.65%, respectively, and expenditure – only by 18.74% and 21%, respectively. Since 2016, there has been an increase in indicators – by 6.85% (2016) and 17.18% (2017) of total household resources, adjusted for the inflation index and 3.12% (2016) and 11.11% (2017) of total costs, adjusted for the inflation index. The tendency of growth of indicators with simultaneous excess of rates of growth of resources (in 2.2 times in 2016 and 1.55 times – in 2017) over expenditures prove to have essential progress in the dynamics of indicators.

The correlation and regression analysis was made based on statistical data for 2010-2018 years (Expenditures and resources, 2018) shown on fig. 1. This analysis allowed to determine the relationship between the average monthly total resources (x) and household expenditures (y) for the studied period. As a result, a linear model was constructed:

$$y=20,56+0,83x, \quad (1)$$

This model indicates that with resources growing by 1 USD, the average monthly household expenditure increases by 0.83 USD.

In the course of the analysis with the help of the correlation coefficient, it is proved that between resources and costs there is a rather close relationship, as evidenced by the value  $r_{xy}=0,995$ . The coefficient of determination showed that 99.2% of the total fluctuations in household expenditures are due to the influence of resources on them, and the other 0.8% of fluctuations are due to the influence of other factors not studied in the model.

The economic interpretation of the model is carried out, as a result of which it is determined that an increase in the average monthly resources of households by 1% will raise the costs by 0.94%.

Using the exponential smoothing method for the period under the review, household incomes (monthly average) were projected for 2020. They could be 259.09 USD, which is 28.84 USD less than in 2018. Using the model (1), the projected value of household expenditure could be as high as 234.98 USD, or 10.26% less than resources. However, this pessimistic forecast takes into account only the previous trends in resources and does not take into account the potential change in the economic situation in Ukraine, which may be caused by the COVID-19 coronavirus pandemic.

At the same time, it should be noted that this level is influenced by many factors including political, migratory, demographics, mental, financial, etc, which lags far behind a real income. If to take into account the significant level of shadow economy (according to estimates of different experts - from 35 to 55% of GDP), a low level of social standards (minimum wage (137.86 USD) and the minimum living wage for able-bodied persons is 68.3 USD), which at 52.01 USD (76.35%) is less than the actual

subsistence minimum, the minimum pension is 55.04 USD as of December 1, 2018), fairly significant unemployment rates (in the range of 10% of the working population), the depreciation of UAH during 2014-2016 by more than three times, it becomes apparent that the standard of living of the majority of the population is lower as compared to physiological standards in other European countries.

The analysis was done to clarify the situation regarding income differences of the population the appropriate. Evaluating these figures, the following conclusions can be drawn: the population with the average total income per month is below the current minimum wage which amounted to 20.2 million persons in 2015, or 51.9 %; in 2016, these figures are fixed at the level of the 10.6 million individuals and 26.6% in 2018.

Quintile difference coefficient of the population total income and assets ratio (for total income) in 2018 constituted 2.0 and 3.3 times respectively, which is almost associated with most of Europe, however, it should be taken into account that the survey does not fully consider the current real facts of life, namely, certain problems in obtaining information about the actual state of revenues stimulated in the mentality of the nation, a significant transfer of funds to Ukraine by "migrant workers", the introduction of e-declarations of income in 2016, etc.

According to the study of subjective poverty and social self-identification "Self-assessment of income level by households in Ukraine for 2017" by State Statistics Service of Ukraine (Self-assessment, 2017), Ukrainian households were asked to determine which class they belong to in assessing material well-being. According to the survey (Self-assessment, 2017), 71% of respondents identified themselves as poor (74% in 2016), 29% as nonpoor but not yet middle class (26%), 0.6% as middle class (0.5%) and almost none of the respondents considered themselves wealthy. This response pattern applies to all groups of households, regardless of where they live, whether they have children or not. Households were asked to specify how much money is needed on average for each person per month not to feel poor. Most households reported an income of USD 338.5 – 376.0 USD and more than 376.0 USD (by 22%) (in 2016-16% and 12%, respectively). The next most common estimate was an income of 150.5 – 188.0 USD, which was indicated by 16% of respondents (23%).

So, as can be seen, one of the main goals of sustainable development, namely overcoming poverty, is very relevant for Ukraine. And this is even though according to calculations carried out by the Institute of Demography and Social Research named after M. V. Ptukha of the National Academy of Sciences of Ukraine, the level of relative poverty in 2018 compared to 2017 decreased by 0.3 percentage points and amounted to 24%. The limit of poverty has reached a level of 96.36 USD average per person per month and increased by 16%.

However, analyzing the structure of households expenditures in Ukraine indicates that 70% of expenditures is the purchase of food, soft drinks, utilities, clothing, shoes, household items and

communications, 15% is other consumer and non-consumer expenditure and only 15% is on recreation, health care, education, car purchases, restaurants, hotels and savings, that is, the needs of the higher level.

The dynamics of total household expenditures in Ukraine and the higher level expenditures is shown in Fig. 2.



Figure 2. Dynamics of total household expenditures and the higher level expenditures in Ukraine

Source: Data is from calculations by authors based on SSU Statistical collection "The structure of households overall costs"

Analysis of the data allowed to build a model of the relationship of these costs:

$$y = -18,39 + 0,27x, \quad (2)$$

This model shows that with the increase in total expenditure ( $x$ ) by 1 USD the higher level expenditures ( $y$ ) increases by 0.27 USD. The relationship is strong enough to indicate that 99.8% of the change in higher level household expenditure depends on the change in total spending, and 0.2% is the effect of other factors that are not investigated in the model. Model (2) is adequate and statistically significant.

The deeper analysis argued clarifying current situation with secondary household expenditures in the 24 regions of Ukraine and Kyiv city. It should be noted that generalizing all regional indicators helped to build the construction of an integral indicator of the higher level expenditures (IHLE). The calculation method that was used, described by Berezhna & Snytyuk, 2016. Concerning this case the sequence is following:

1. Formation of a set of indicators and determination of their characteristic values. The higher level expenditure indicators proposed to characterize according to their type: health care ( $x_{1i}$ , USD), recreation and culture ( $x_{2i}$ , USD), education ( $x_{3i}$ , USD), restaurants and hotels ( $x_{4i}$ , USD), purchase of shares, certificates, currency, bank deposits ( $x_{5i}$ , USD), where  $i$  is the region for which the calculation is made ( $i = 1, n$ ).

2. Normalization and standardization of indicators. As it is known, the task of normalization is the transition to this scale of measurement, when the "best" indicator corresponds to the value of 1 and a "bad" value is 0. All proposed indicators are stimulants. Therefore, the standardization of indicators made by comparing them with the average result in Ukraine ( $a_j$ ), according to the formula:

$$z_{ij} = \frac{x_{ij}}{a_j}, \quad (3)$$

where  $i$  is the region for which the calculation is made ( $j=(1,m)$ ).

3. Calculation of the integral index. It is proposed to build an integral indicator of the higher level expenditures (IHLE) according to the following formula

$$I_{HLEij} = \sum_{k=1}^5 d_k z_{kij},$$

that is

$$I_{HLEij} = 0,3z_{1ij} + 0,2z_{2ij} + 0,2z_{3ij} + 0,175z_{4ij} + 0,125z_{5ij}, \quad (4)$$

where  $z_{1ij}, z_{2ij}, z_{3ij}, z_{4ij}$  – normalized and standardized values, respectively, of expenditures for health protection ( $x_1$ ), on recreation and culture ( $x_2$ ), education ( $x_3$ ), restaurants and hotels ( $x_4$ ), the purchase of shares, certificates, currency, deposits in banks ( $x_5$ );  $i$  – the region for which a calculation of ( $i = 1, n$ ) is performed,  $j$  – the index, which is calculated ( $j = 1, m$ ).

It should be noted that the coefficients  $d_k$  ( $k = 1, 5; d_1 = 0,3; d_{2,3} = 0,2; d_4 = 0,175; d_5 = 0,125; \sum_{k=1}^5 d_k = 1$ ) are obtained by the method of expert assessments and indicate the importance of each of the indicators in the integral  $x_{1ij}, x_{2ij}, x_{3ij}, x_{4ij}, x_{5ij}$  indicator  $I_{HLEij}$ . The formula shows that health care costs are the highest. The higher level expenditures integral indicator calculated by the formula  $I_{HLEi} = \frac{1}{5} \sum_{j=1}^5 I_{HLEij}$ .

The data  $I_{HLEi}$  of the State Statistics Committee of Ukraine for 2018 on cash expenditures of households by regions were used for the construction. The obtained results of the integral indicator are summarized in Fig. 4.

The results of the study indicate that 11 regions of Ukraine have generalized indicators of secondary costs above the national average, and 14 regions are below it. The cost of healthcare, recreation, education, transportation, deposits in banks are mainly affordable by the households of Kyiv, Chernivtsi and Zaporizhia regions with values  $I_{HLEi}$  1.845; 1.633 and 1.466, respectively. The residents of Donetsk, Zhytomyr, Kherson, Khmelnytsky and Rivne regions can buy less and have an integral index of less than 0.6. Thus, households in most regions of Ukraine are not satisfied with the opportunities available to ensure an adequate standard of living.

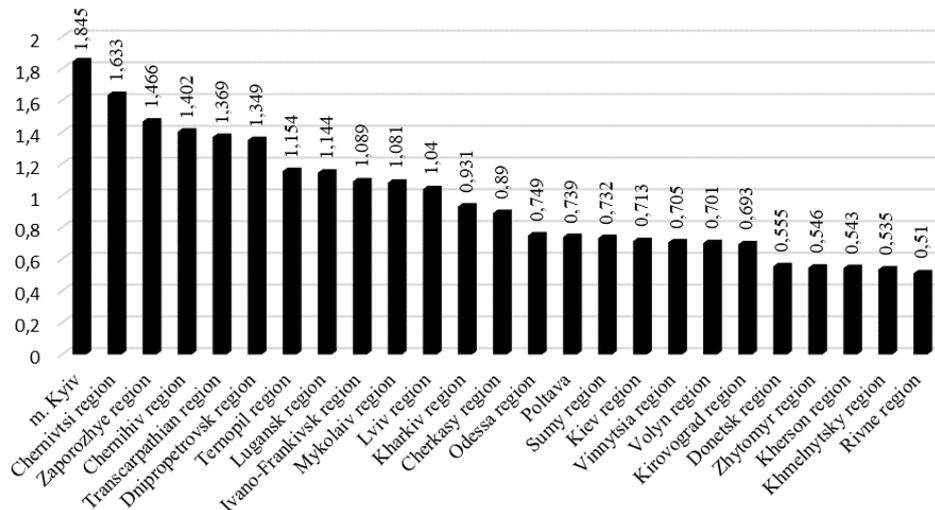


Figure 4. Ranking of regions of Ukraine on the higher level expenditures integral indicator in 2018

Source: Data is from calculations by authors based on SSU Statistical collection "Households money expenditures by region of Ukraine in 2018"

## CONCLUSIONS

The household income is an important socio-economic indicator of the social development of any country and its differentiation leads to stratification on a property principle. The study identified the level difference of this, which, in general, does not reflect domestic facts of life in comparison with the official statistical data.

Monitoring of the condition of the households allows determining the power of the regional development and the success of achieving the sustainable development goals at the territory.

The developed model of connection of total household expenditures and the higher level expenditures in Ukraine proves that with the growth of total expenditures ( $x$ ) by 1 USD the the igher level expenditures ( $y$ ) increases by 0.27 USD. The relationship is strong enough to indicate that 99.8% of the change in the higher level expenditures depends on the change in total expenditure, and 0.2% is the effect of other factors that are not investigated in the model. The model is adequate and statistically significant.

Thus, it can be concluded that a household is more satisfied with life and does not feel poor if it can spend more money on non-urgent needs, namely on: health care; transport; recreation and culture; education; restaurants and hotels; purchase of shares, certificates, currency, deposits in banks.

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The theoretical significance of the study is that taking into account the results of monitoring household incomes and their impact on the sustainability of social development will formulate appropriate proposals to reduce the differentiation of household incomes and ensure sustainable development. The practical significance of the study is due to the developed correlation models of household expenditures (by the type of expenditure and by the regional distribution), developing practical recommendations for cost management and optimization of the ratio of income and expenditure, both by type and in the regional distribution.

Taking into account that the income of households in Ukraine, comparable with the volume of GDP, lags far behind, affects the SDG achievement, there is a need to continue research in this area.

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## ROLE OF PERSONAL NETWORKS AND SOCIAL CAPITAL ON THE ACQUISITION OF RESOURCES FOR THE SOCIAL ORGANIZATIONS

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### ABSTRACT

A major problem for social entrepreneurs that want to manage a social organization on a daily basis is the problem of acquiring external resources (physical, financial, human, etc.) to fulfil its social mission. The literature has suggested that networks can play a critical role in resources acquisition.

This study aims to investigate the role of the social entrepreneur's network and social capital on the acquisition of different kind of external resources to the social organization. The study uses a quantitative method, and the primary data as collected through an online survey of 313 social organizations from Portugal, the results show that the founders' network acts positively in attracting human resources, assuring state support and obtaining information from different stakeholders relevant for the management of the social organization. The founders' social capital seems to be only relevant to the attraction of financial resources to social organizations. The investigation allows enlarging the knowledge about the network approach to social entrepreneurship that is still very under-exploited.

*Keywords: Personal network; Social Capital, Resources; Social entrepreneurship; Portugal.*

### INTRODUCTION

Social entrepreneurs are people who play the role of change agents in the social sector by: i) adopting a mission to create and sustain social value; ii) recognizing and relentlessly pursuing new opportunities to serve that mission; iii) engaging in the process of continuous innovation, adaptation and learning; iv) acting boldly without being limited by resources currently in hand; and v) exhibiting heightened accountability to the constituencies served and for the outcomes created (Dees, 2001; Cho, 2006).

In the context of entrepreneurship, there is a long tradition of studying entrepreneurial networks and their effect on startups' success (Birley, 1985; Aldrich and Zimmer, 1986; Johannisson, 1988; Hoang and Antoncic, 2003; Greve and Salaff, 2003; Witt, 2004). Similarly, the literature on social entrepreneurship has recognized that networks and social capital are critical for social organizations' success (Leadbeater, 1997; Austin et al., 2006; Mair and Martí, 2006; Sharir and Lerner, 2006; Chell, 2007; Bauer et al., 2012). For instance, Chell (2007), states that social entrepreneur's behaviour would not be complete without

the inclusion of the role of networks whether Leadbeater (1997) claims that networks represent one of the main assets of social organizations.

In general, social businesses are founded as a result of motivated entrepreneurs that are capable of attracting external resources to explore opportunities that try to attenuate social problems. From inception, the set of personal networks of the founder and the social capital that are built around the social organization are crucial assets for the social organization struggling to create social value (Bernardino, Freitas Santos and Cadima Ribeiro, 2019). Personal networks and social capital allow social entrepreneurs to enlarge their activities, save time and gain access to resources and opportunities otherwise unavailable. Social networks stimulate the attraction of resources by capturing financial resources, seizing human resources, creating awareness for the social project, and generating organizational knowledge (Bernardino and Freitas Santos, 2019). Social capital provides access to new information, additional resources and knowledge-management capabilities (Hoffman, Hoelscher and Sherif, 2005), and their existence is rooted in the relationships established with other actors (e.g. entrepreneurs, firms) or institutions (e.g. public or private organizations) (Estrin et al., 2013).

However, empirical research on the role of networks and social capital on the mobilization of resources is still somewhat limited (Turkina, 2018; Bernardino and Freitas Santos, 2019). Therefore, the purpose of this paper is to study the role of social entrepreneur's network and social capital on the process of resource acquisition for the functioning and development of social organizations.

The paper proceeds as follows. The first three sections review the prior literature on the social entrepreneur's network and social capital, as well as the benefits for social entrepreneurship. The following section describes the methodology for the development of the empirical work. Then, the results are presented and discussed. The final section concludes.

## **1. PERSONAL NETWORKS**

The concept of networks was derived from social psychology, sociology and inter-organizational theory (Tichy, Tushman and Fombrun, 1979; Granovetter, 1983; 1985) to analyze the nature of exchange that occurs between individuals and the influence of networks on the management of organizations (Dodd, Jack and Anderson, 2006).

Over the past years, the concept has been progressively applied to entrepreneurship (Slotte-Kock and Coviello, 2010; Dodd et al., 2006, among others) and more recently to social entrepreneurship (e.g. Leadbeater, 1997; Bauer et al., 2012; Bernardino, Freitas Santos and Fagundes, 2017).

According to current positions in the literature, economic behaviour is embedded in a network of relationships that connects individuals and firms in a continuous and cumulative process that is developed over time (Slotte-Kock and Coviello, 2010; Granovetter, 1985; Jiang et al., 2018). Thus, to

have a complete picture of entrepreneurship is necessary to take into consideration the role played by networks.

A network consists of single nodes (such as persons or organizations) linked by a set of relationships (e.g. friendship, transfer of funds, overlapping membership), which as a whole form the structure of the network (Hoang and Antoncic, 2003). Thus, individuals belonging to a given network are involved in social interactions and social relationships with the actors that also belong to the same network.

In the context of the entrepreneurial process, networks act both as a support to entrepreneurial activity (by making easy the access to resources), as well as a source of information about improvements in the operational efficiency of the business (technical advice and management of human, physical and financial resources) (Stuart and Sorenson, 2005).

The literature recognizes that there are different types of networks. The structural characteristics of the network refers to configuration and linkage between its members (Aprilia and Wibowo, 2017) that are influenced by the network size (the number of direct links hold), diversity, centrality (the capacity of the individual to "reach" others in their network through intermediaries), formality and proximity to the different members (strong vs weak ties) (Dodd et al., 2006; Hoang and Antoncic, 2003).

Further, networks could be categorized in accordance with the actors interconnected in the nodes' relationship. Personal networks include the set of social relationships that are established by the entrepreneurs with family members, friends, business colleagues and other entrepreneurs (social or economic) (Santos, 1998; Witt, 2004). These informal relations are grounded on shared interests, personal friendship, family ties or other kind of demographic, social or cultural preferences. These sorts of relationships have been recognized as particularly important for entrepreneurship (Dodd et al., 2006).

As mentioned by Huang et al. (2012, p. 316) "expanding individual social network to organizational network will create meaningful ties for the organization to connect mutual networks (or business networks) and bring important resources that used to be non-imitable and inaccessible". Thus, some organizations, mainly medium and small-sized startups, to succeed, have to rely on their founders' ties to increase its capacity to pursue its mission and improve its overall performance.

## **2. SOCIAL CAPITAL**

Social capital is derived from the links established between individuals and/or other entities, and encompasses all the effects these links are able to provide (Bauer et al., 2012). In this sense, social capital is defined by Bauer et al. (2012, p. 438) as "the sum of all the potential and real resources that are accumulated in a person or group of people (institutions, firms, associations, regions or countries) due

to having a lasting network of more or less institutionalized knowledge and mutual-recognition relationships".

Social capital can be seen as the capital that can be derived from belonging to a given network, or as referred by Bowey and Easton (2007) as 'network capital'. Thus, social capital can be understood as the assets or resources embedded in the relationship between individuals or groups, that are linked together through durable networks (Bourdieu, 1986). Therefore, as argued by Bowey and Easton (2007, p. 273), social capital "has been inextricably linked to networks, network formation, or networking activities", since social capital is created and leveraged through the relationships that are established within the different networks to which an individual belong. Therefore, social capital is an intangible asset that derives from the investment made in human relationships and is developed in an iterative process (Bauer et al., 2012; Woolcock and Narayan, 2001) and is empowered through the high level of trust, reciprocity, and behaviour norms, that are shared between the members of a network (Mair and Martí, 2006; Meyskens et al., 2010). This shared resource is created, leveraged and renewed through interpersonal networks and the interaction between citizens that belong to the same network (Ármanndóttir, 2011; Toledano, 2011; Zhengdong, 2011; Tremblay, Gutberlet and Peredo, 2010).

Literature has recognized that different individuals could have different social capital endowments that are able to influence the benefits they can achieve. (Woolcok and Narayan, 2001). The development of an individuals' social capital is a cumulative and contextually contingent process, built over time that is dependent of the relationships he/she has with other individuals or entities, and the structure, contents and shared interests of those relationships (Bowey and Easton, 2007). Thus, the social capital endowments will increase if: (i) the social network of a social entrepreneur is more extensive and diverse; (ii) the members of the network are more connected; and (iii) the quality of relations established between the members of the network, expressed by the level of trust, respect and friendship are higher (Ármanndóttir, 2011; Mair and Martí, 2006; Sharir and Lerner, 2006).

Many authors claim that social capital is a critical asset for social entrepreneurship, and for the success of social ventures (Austin et al., 2006; Leadbeater, 1997; Mair and Martí, 2006; Mourão, Pereira and Moreira, 2017; Sakurai, 2008; Sharir and Lerner, 2006; Liu, Xiao, Jiang and Hu, 2020). From the point of view of the social entrepreneur, this asset concerns the number of contacts (network extent) and the trust that could be derived from them (Leadbeater, 1997). For Bauer et al. (2012), social capital is one of the main bases of the social sector, being considered even more important than in the economic entrepreneurship field.

### 3. PERSONAL NETWORKS, SOCIAL CAPITAL AND RESOURCES ACQUISITION

The network approach to entrepreneurship suggests that entrepreneurs "use their personal network of private and business contacts to acquire resources and information that they would not (or not as cheaply) be able to acquire on markets" (Witt, 2004, p. 392). The network also signals resource availability for entrepreneurs asking for resources (Dodd et al., 2006). Consequently, the nature of the relationships established between different parties will influence the resource exchange among its various members (donors, sponsors, friends and family) (Axelsson and Easton, 1992).

Social capital is able to offer several gains for individuals that are involved in social relationships. For Ge et al. (2009, p. 224) "the network provides a special structure for connecting to the outside to get useful information, resources, and social support that allows the firm to identify and make use of various opportunities". By improving the ability of the entities involved to access resources, social capital also has a very positive contribution on the venture ability to grow and develop itself and to reinforce its competitive position (Bauer et al., 2012). These benefits are derived from the interconnection of different people/entities that belong to the same network, and share such kind of reciprocity, trust and cooperation, leveraging the access to other specific resources that are critical for their activities (Bauer et al., 2012). In fact, social entrepreneurs need to manage a wide range of internal and external resources to pursue its social mission (Leadbeater, 1997; Dees, 1998, 2001; Di Domenico et al., 2010) and the use of networks and social capital could be very important for that purpose.

After a review of the literature on social entrepreneurship and social networks, Dangmei (2016) concludes that social networks are useful vehicles enabling the social entrepreneurs to get access to important resources. Also, the role of networks have been empirically confirmed in several studies (e.g. Jenssen, 2001; Jenssen and Koenig, 2002; Stuart and Sorensen, 2005; Ge et al., 2009).

The relationship between the personal network of entrepreneurs and the influence on the process of resource acquisition has been explicitly recognized by Witt (2004). According to this author "founders can gain access to resources more cheaply by using their network contacts than by using market transactions, and that they can acquire resources from the network that would not be available via market transactions at all" (Witt, 2004, p. 394). Further, the "opportunity to procure resources (...) arises due to friendship or kinship ties to network partners" that "offer the entrepreneur specific resources at no charge or below the market price simply to do them a favour or to return a favour that they received earlier" (Witt, 2004, p. 394).

For Jiang et al. (2018), social entities have an excellent potential to leverage outside resources, that are inherent in their networks, and that will allow the entity to exploit emerging opportunities. Still according to the authors, based on a network approach, by resorting the relationships held within a

network, actors will increase the likelihood of success in resource seeking and acquisition. The potential in terms of social capital generation and utilization could be optimized in accordance with the members motivation-opportunity-ability (Jiang et al., 2018).

Specifically, the improved capacity in accessing resources could be found in different types of resources, such as physical, financial, human or informational (Bauer et al., 2012; Austin et al., 2006; Mair and Noboa, 2006; Sakurai, 2008).

- *Physical resources*

To exploit a social opportunity, social entrepreneurs need a range of assets, which include the physical resources. The ability of acquiring such kind of resources is critical for social entrepreneurship and could be made possible or beneficial through the use of the social entrepreneur network, since the conditions under which the transitions are carried out could be improved and the transactions costs reduced (Bauer et al., 2012).

- *Financial resources*

The personal network could be used to acquire financial resources from family, friends and acquaintances and to access donors and other sponsors. According to the literature, network ties appear to be more effective in increasing the chances of raise capital from friends and family, acquaintances, donors, sponsors than the market methods, such as banks and investors (Zhang et al., 2010). For Stuart and Sorensen (2005), social networks influence the entrepreneurial process and trace the ties through which financial capital flows. Based on a literature review, Zhang et al. (2010) show that social networks have been widely recognized for successful funding, especially strong ties and particularly for initial funding acquisition. Also, the private information transferred through direct ties can help to build up the knowledge-based trust of the donors in the social entrepreneurs and thus facilitate resource acquisition (Shane and Cable, 2002).

- *Human resources*

Social ventures depend on human resources to accomplish their mission. Compared to business firms, social ventures have more disadvantages in their quest for human resources in a dynamic and competitive labour market. Therefore, an entrepreneur's personal network becomes critical in the process of identifying and recruiting workers or volunteers for the social venture (Stuart and Sorensen, 2005), that could be done more effectively and efficiently.

Based on a literature review in the profit sector, Galaskiewicz et al. (2006) show that social networks are useful for recruiting new people, even though they can increase employees' turnover, since individuals could use their ties to find new jobs. In the social entrepreneurship domain, qualitative research reveals

that social networks are critical for the mobilization of resources by social organizations (Bernardino, Freitas Santos and Fagundes, 2017). According to the same research, the use of networks for human resources' acquisition occurs mainly in the provision of specialized employees than other employees and volunteers (Bernardino, Freitas Santos and Fagundes, 2017).

- *Informational resources*

Social capital is also critical for obtaining informational resources, that are critical for improving the organization ability to identify (local) social needs (Shaw, 2004), solve problems and make management decisions more knowledgeable (Bowey and Easton, 2007).

The information shared between the members of a given network also leads to collective learning processes, the development of more innovative solution (Myers and Nelson, 2010; Nga and Shamuganathan, 2010), as well as a more effective discover and exploitation of opportunities (Bauer et al., 2012; Marshall, 2011; Myers and Nelson, 2010; Galaskiewicz et al., 2006). According to Burt (1993), the benefits of social networks on information acquisition can derive from: (i) access to better information quality; (ii) the time the information is provided; and (iii) the number of referrals each individual could have access.

## 4. METHODOLOGY

### *Research context*

The database of organizations that are willing to benefit from a consignment of 0.5% of the personal income tax-supported by taxpayers provides the empirical setting for this research. The database integrates the organizations that Portuguese tax administration considers of public interest, such as institutions of social solidarity and other types of entities (social, cultural, humanitarian). The list for the fiscal year of 2017 was accessed in April 2018 and included 3.777 organizations. The database that only contains the fiscal number and the name of the entities was completed by consulting the website of the organizations, the social media pages, and the website of the Social Chart (includes the institutions that are supervised by the Ministry of Solidarity and Social Security). This operation was performed during the years of 2018 and 2019, leading to a list of email contacts of 3.252 entities.

### *Data collection*

### *Questionnaire design*

Measures of all constructs were developed based on a review of the literature. A preliminary version of the questionnaire was developed and administered to three academics in the field of management and economics. The purpose was to evaluate the content validity of the measures selected. The research

instrument was then modified based on the feedback received. Subsequently, the revised questionnaire was pretested and refined for relevance and clarity, and no significant problems were found.

#### *Survey response*

Each of the 3.252 entities included in the database with the email address was contacted during January and March of 2020. The purification of the database was completed with the removal of 864 email addresses due to absent emails addresses and errors messages. The total number of the sampling frame was 2.388 email contacts.

A formal email describing the objectives and importance of the study was sent to all entities. All respondents were guaranteed anonymity, and a summary of the research findings was promised in exchange for their participation. After two rounds of persistent emails asking for respondents to return the questionnaires, some entities failed to accept the email or were not willing to answer. A total of 337 questionnaires were received although 24 were dropped due to excessive missing data. Thus, we obtained 313 responses, yielding an acceptable response rate of 13.1% (313/2.388).

#### *Sample*

The largest number of the 313 respondents who participated in the survey were from social organizations located in the middle of the country (N = 143), North (N = 112), South (N = 50) and Islands (N = 8). In the sample, 91.1% of the organizations held more than 10 years of existence, 6.1% held between 5 and 10 years, and the remainder (2.9%) held less than 5 years. The geographical area of intervention of the majority of organizations were local (N = 141), regional (N = 92), national (N = 62) and international (N = 18). The size of the social organizations measured by number of employees, volunteers, beneficiaries and annual total amount is as follows: number of employee less than 5 (N = 45), between 5 and 10 (N = 41), between 11 and 30 (N = 98) and more than 30 (N = 129); number of volunteers less than 10 (N = 186), between 10 and 20 (N = 63), between 21 and 50 (N = 25) and more than 50 (N = 39); number of beneficiaries less than 100 (76), between 101 and 200 (N = 78), between 201 and 500 (N = 58) and more than 500 (N = 101); annual amount less than €50.000 (N = 30), between €50.000 and €100.000 (N = 61), between €100.001 and €500.000 (N= 89), and more than €500.000 (N = 133).

#### *Measurement*

Multi-item scales and five/seven-point response formats were used to operationalize all variables. The measurement approach for each theoretical construct is described briefly below and is measured on a five-item Likert scale: 1 for “strongly disagree” and 5 for “strongly agree”.

**Founder's network (FN)** – this five-item construct was operationalized using four statements for measuring founder's perceptions of the potential partners that are beneficial for his/her business, the

common values that founder shares with his business partners, the founder and business partner trust and respect between each other, and exchange of information with honesty between founder and business partner. The items were derived from Huang, Lai and Lo (2012), adapted for social organizations and refined in the pre-testing stage of the questionnaire.

**Founder's social capital (FSC)** – this seven-item construct was operationalized using four statements for measuring founder's and its team perceptions about the consistency of their professional background with the needs of the social organization and the success in obtaining funds for the social organization. The items were derived from Huang, Lai and Lo (2012), adapted for social organizations and refined in the pre-testing of the questionnaire.

### **Resource acquisition capability**

The variables related to resource acquisition capability were operationalized using a five-item Likert scale, according to the scheme below:

CAPYS – defined as the capacity to acquire physical resources (machines, cars, etc.);

CAHUM – defined as the capacity to acquire human resources (volunteers, collaborators);

CAFIN – defined as the capacity to acquire financial resources;

CATFS – defined as the capacity to obtain tax exemptions and financial support;

CAHSO – defined as the capacity to obtain help from other social organizations to deliver the service;

CABSP – defined as the capacity to get better suppliers;

CAINF – defined as the capacity to acquire relevant information to the social organization.

The first six items were derived from Ge, Hisrich and Dong (2009) and the last one from Thornton, Henneberg and Naudé (2015), although all were adapted for social organizations and refined in the pre-testing stage of the questionnaire.

## **5. RESULTS**

Exploratory factor analysis was initially employed to purify the multi-item scale regarding the constructs related to the founders' network and social capital network. The method of principal component analysis was used, and the results are presented in Table 1. The indicators of the robustness of the analysis (Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA) = 0.838; Bartlett's test of Sphericity 1983.113,  $p < 0.001$ ), seem adequate for further analysis. The two factors solution corresponds: i) the first factor to the founder network (FN); ii) the second factor to the social capital of the founder (FSC). The Cronbach estimate of internal consistencies for each factor is very good (0.901 and 0.895).

| Items | Factor 1 | Factor 2 |
|-------|----------|----------|
| FN1   | 0.714    |          |
| FN2   | 0.835    |          |
| FN3   | 0.863    |          |
| FN4   | 0.814    |          |

|                     |        |        |
|---------------------|--------|--------|
| FSC1                |        | 0.763  |
| FSC2                |        | 0.785  |
| FSC3                |        | 0.810  |
| FSC4                |        | 0.838  |
| Eigenvalue          | 5.33   | 0.837  |
| Explained Variance  | 38.843 | 38.253 |
| Cumulative Variance | 38.843 | 77.096 |
| Cronbach's Alpha    | 0.901  | 0.895  |

Notes: N = 281; Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA) = 0.838; Bartlett's test of Sphericity 1983.113 ( $p < 0.001$ ).

Table 1. Results of the exploratory factorial analysis (principal component)

An analysis of correlations between the two constructs and the other variables that will be used in the study was performed to provide a general picture of their intercorrelations (table 2). The highest correlations (0.675 and 0.661) were between financial and physical resources, and financial and human resources, respectively. There are also several correlations above 0.5 although the estimated magnitudes of the correlation's coefficients do not raise any severe concerns of multicollinearity for the regression analysis.

| Variables | FN    | FSC   | CAPYS | CAHUM | CAFIN | CATFS | CAHSO | CABSP | CAINF |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| FN        | 1     |       |       |       |       |       |       |       |       |
| FSC       | 0.00  | 1     |       |       |       |       |       |       |       |
| CAPYS     | 0.278 | 0.24  | 1     |       |       |       |       |       |       |
| CAHUM     | 0.368 | 0.283 | 0.564 | 1     |       |       |       |       |       |
| CAFIN     | 0.295 | 0.397 | 0.675 | 0.661 | 1     |       |       |       |       |
| CATFS     | 0.325 | 0.176 | 0.553 | 0.446 | 0.606 | 1     |       |       |       |
| CAHSO     | 0.279 | 0.258 | 0.484 | 0.561 | 0.619 | 0.579 | 1     |       |       |
| CABSP     | 0.316 | 0.294 | 0.439 | 0.41  | 0.504 | 0.448 | 0.536 | 1     |       |
| CAINF     | 0.385 | 0.24  | 0.42  | 0.401 | 0.411 | 0.413 | 0.467 | 0.635 | 1     |

Note: All correlations are significant at the 0.01 level (2-tailed).

Table 2. Correlation Matrix

To test for the effects of the founders' network and social capital, we adopted the OLS (Ordinary Least Squares) regression procedure. The dependent variables are two constructs measuring the personal network and the social capital of the founder, respectively. The independent variables consist of the seven variables controlling for different type of resources (physical, human, financial, tax exemptions and financial support, help from other social organizations to deliver the service, suppliers, relevant information).

The empirical results are presented in Table 3. To check the stability of the impacts of the network and social capital dependent variables, our first set of estimates excluded the control variables age of the organization and size measured by the number of employees (FN1 and FSC1). The latter was subsequently added to the analysis (FN2 and FSC2), thus allowing us to determine whether the basic findings on the variables of interest were affected by the inclusion of the control variables.

| Variables | FN       |          | FSC      |          |
|-----------|----------|----------|----------|----------|
|           | 1        | 2        | 1        | 2        |
| Constant  | -1.844** | -1.194** | -1.375** | -1.403** |
| CAPYS     | -0.015   | -0.08    | -0.062   | -0.054   |
| CAHUM     | 0.252**  | 0.234**  | 0.029    | 0.014    |
| CAFIN     | -0.047   | -0.056   | 0.414**  | 0.412**  |
| CATFS     | 0.162*   | 0.155*   | -0.132   | -0.128   |
| CAHSO     | -0.058   | -0.053   | -0.002   | -0.006   |
| CABSP     | 0.053    | 0.068    | 0.121    | 0.128    |
| CAINF     | 0.236**  | 0.233**  | 0.063    | 0.070    |
| Age       |          | -0.064   |          | 0.027    |
| Size      |          | -1.199   |          | -0.065   |
| R2        | 0.218    | 0.227    | 0.185    | 0.189    |
| Adj R2    | 0.20     | 0.205    | 0.166    | 0.165    |
| F         | 12.176** | 9.912**  | 9.882**  | 7.844**  |

Note: N = 313. (\*\*) Significant at the 0.01 level; (\*) Significant at the 0.05 level.

Table 3. *Multiple regression analysis*

The estimates on the partial model, which consists of just the variables of interest for the examination of the founders' network, show that three of the seven variables are statistically significant. Therefore, the founders' network acts positively in attracting human resources, assuring state support and obtain information from different sources relevant to the management of the social organization. The results of FN2 reveal the stability of the signs of the variables and provide further support for the findings. The non-significance of the remaining variables implies that physical and financial resources, other social organizations help, and better suppliers' selection are not attracted by the founders' network.

The results for the founders' social capital show that only financial resources are attracted to social organizations. The remaining variables are not statistically significant, even the control variables, meaning that none of them is influenced by the social capital of the founder.

## CONCLUDING REMARKS

Academic research has consistently advocated the relevance of social networks and social capital to entrepreneurship. In spite of the increased recognition that networks and social capital are critical for the success of social ventures, empirical studies are still scarce. This study contributes to get a more comprehensive understanding of the influence that entrepreneurs' personal network and social capital could exert in the management of social organizations, specifically on the process of resource acquisition for the functioning and development of social organizations.

The empirical study developed within the Portuguese social organizations revealed that the involvement of social entrepreneurs in networks is able to offer some benefits to organizations related to its ability to acquire resources. Specifically, the results revealed that the social entrepreneur's

personal network is able to favor the capacity of acquiring human resources and relevant information. The founders' social capital is also able to enhance the capacity to acquire financial resources. This pattern is found for all social organizations, regardless the control variables, such as age or size. No specific benefits were found with respect to physical resources, capacity to obtain tax exemptions, access to better suppliers or exchanges with other social organizations.

The findings attained are consistent with the network approach to entrepreneurship (Witt, 2004; Dodd et al., 2006; Hoang and Antoncic, 2003) and are aligned with existing evidence that confirms the benefits that networks and social capital are able to provide (e.g. Jenssen, 2001; Jenssen and Koenig, 2020; Bernardino, Freitas Santos and Fagundes, 2017). The results attained allowed to go further in the comprehension of a topic that although relevant and promising is still under-exploited in the context of social entrepreneurship.

The main limitation of the study is to include only Portuguese social organizations. As social networks and social capital are a very contingent dependent phenomenon, this could compromise the ability to generalize the results to other empirical contexts.

In the future, it will be worthy to study the role of other types of networks (such as entrepreneurial or institutional) on the resources acquisition, as well as the way different structural characteristics of the social network are able to shape the benefits attained. It would also be interesting to quantify the effective impact that network produce on the performance that social ventures are able to achieve. In addition, it would be positive to develop a comparative study between entities belonging to social and commercial entrepreneurship.

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## A FRAMEWORK TO TRANSFORM SMES IN DEVELOPING COUNTRIES - A CASE STUDY OF INDIA

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### **ABSTRACT**

Businesses around the globe are expanding their horizon and advancing their business activities to other countries. India is also a major shareholder of global trade. All the emerging economies are trying to gain the king's share in the world of International Business.

SMEs play an important role in emerging economies including India. The number of SMEs in India is estimated to be around 42.50 Million, including registered and unregistered companies. They provide employment to 106 million people, which is 40% of the Indian population. SMEs contribute to 40% export in India (Data from MSME/CII Reports, 2017). They have various strengths like the availability of cheap labour, the abundance of resources, and the rise in disposable income of the Indian population, influx in domestic and foreign capital. Indian SMEs can use all these factors and gain further prominence.

There are four broad categories through which SMEs can get involved in International Business, these are exports, contractual agreements, production investment, and strategic alliances. This research will majorly focus on the export processes.

The Research methodology used for the collection of data and analysis comprises of both primary and secondary research.

Secondary research was done through analysing data and information present in a number of research papers, globally published reports, news articles, etc.

Primary research was conducted using the qualitative technique of face to face interviews, where decision makers of SMEs, academicians from the industry, and industry experts were interviewed. The questions explored the major challenges faced by SMEs, the reach of government initiatives tailor made for the SME sector, issues in finding prospective clients/buyers, internal challenges of the organization, etc.

SME sector needs to adapt to the Go Global concept as it is no more a choice but a survival tactic to have steady business growth. Internationalization will open large markets for goods and services, help in mitigating risk, and earning higher profits.

The authors suggest recommendations like starting awareness programs as there is a lack of awareness about the existence of such initiatives. Conducting of City level Internationalization

Training Programs where SMEs should be informed about the process and methods of how to approach it. Making available market development assistance schemes where SMEs can easily create a market for their goods and services can be made easily available.

*Keywords: International Business, SME, Export, Strategic Planning, Government Support, Internal Efficiency, Market Competitiveness*

## 1. INTRODUCTION

The SME sector is a significant contributor to the economic and social growth of the country. According to the CII SME sector contributes 40% of overall exports from India. SME is termed as the driver of growth and exports, and thus there is the utmost importance to promote manufacturing exports which have a high potential for employment generation and revenue growth.

Internationalization is defined as the extent to which a firm is involved in different aspects of international business. It comprises exporting, foreign subsidiaries, the appointment of foreigners in the organizational hierarchy, and share ownership by foreigners. (Chelliah, et al, 2010).

Codotto (2008) has suggested four modes of internationalization: production investment, contractual agreements, exports, and strategic alliance. Kogut and Chang although regard export as the first step of entering the international market as it comes out as a safe strategy because of a lack of resources and finances.

Through this research, various challenges faced by SMEs have been identified. In the whole ecosystem, there are numerous stakeholders such as SMEs and their internal organizational capabilities, government, policy makers, trade associations, etc. The importance of each stakeholder, challenges associated with their current working, and possible solutions were identified through this research.

Indian SMEs still struggle to mark their presence in the International markets. For excelling at International Business there are three important factors: (i) Support from government, (ii) Intrinsic qualities of the organization, and (iii) Demand of the product or the service in the International Markets.

The authors have divided the proposed recommendations that came out through the research into three categories for a clear division of roles and responsibilities. More awareness needs to be created regarding the government schemes and initiatives and the process needs to be simplified and hassle free so as to provide higher benefits to the SMEs. SMEs need to focus more on their internal organizational capabilities by following best practices suitable for the industry at the international level, increasing the strengths and role of trade associations, etc.

## 2. LITERATURE REVIEW

1. Chandra et al (2019) in their study using qualitative research have found that internationalization of SMEs in Fiji depends on management competency and entrepreneurial orientation and is obstructed by the negative institutional environment.
2. Sonia Mukherjee (2018) in her study about challenges to MSMEs analyses the rival firms originate from the neighboring countries in terms of export competitiveness. The main reason attributed to this is the lack of use of updated technology and other notable reasons. She concludes that higher investment in technology and R&D can help in reducing the gap. Other contributing factors are an investment in human resources, improved access to finance, reduced infrastructural gaps, and lesser stringent business regulations.
3. Jyoti Sharma and Guneet Gill (2016) have recognized MSMEs as an integral part of the economy. They have been termed as “engine of the growth” for a country accrediting to various factors such as providing large scale employment, helping in the industrialization of rural and backward areas, bridging the gaps of regional imbalances, providing an equitable distribution of national income and wealth.
4. Cerrato et al (2016) have presented a multi dimensional approach to analyzing the internationalization of firms. Four archetypes like weak internationalizer, investor, networker and marketer were identified by the authors through cluster analysis of data drawn from 63 Italian SMEs.
5. Dr. Vishal Bishnoi (2015) has analyzed the strategic issue, organizational transformation, and performance challenges faced by Indian SMEs while Internationalization. The research suggests that globalization has provided new opportunities to Indian SMEs and the sector has also taken advantage of them. The author expects that internationalization will gain further momentum in the future because the world economy is becoming increasingly integrated due to the continued decline in government imposed barriers and continued advances in technology.
6. Binod Anand, Pooja Jain and Somprabh Dubey (2015) et al have identified major problems in the path of internationalization for Indian SMEs to be the absence of access to the international markets, knowledge management at the firms, banking services and availability of the credit. The study suggests that to enhance the competitiveness of SMEs there is a need for creating the legal, regulatory, and administrative environment, access to finance and capable institutional structures, and human capital.
7. Anis Ali and Firoz Husain (2014) highlight that the MSME sector accounts for 36% export made by India, but the distribution is not uniform across India because of the unavailability of raw material, lack of finances, lack of entrepreneurial skills development and lack of technical support. The unavailability of adequate and timely credit facility, high cost of credit, lack of modern technology, no

research, and innovations, insufficient training and skill development, complex labor laws are the main problems of the MSMEs.

8. Nir Kshetri and Nikhilesh Dholakia (2011) et al have compared India and China's regulative, participative, and supportive roles from the standpoint of entrepreneurship in the two countries. Their study reveals that the Chinese government provides a more favorable environment than the Indian government.

9. Sinha, Paresha et al (2011) have studied motivations for offshore outsourcing encountered by manufacturing SMEs and their suppliers in China. Their study shows that the first rationale is to increase efficiency and reduce labor costs while holding quality constant. The second is flexibility in resource allocation.

10. Rajesh Kumar Singh and S G Deshmukh (2009) have done a comparative study between India and China about the competitiveness of SMEs in a globalized economy. They have examined the role of government policies and strategy development for competitiveness. Their study suggests that an organization should focus on developing human resources and improving quality.

### **3. OBJECTIVE**

The objective of this research paper is:

- i. To understand the level of awareness of government schemes and initiatives and to assess the reach.
- ii. To understand how well aligned are the government schemes and initiatives to the need of SMEs in terms of design and implementation.
- iii. To identify the importance of trade associations and industry associations and the vital role they play as a mediator between the enterprises and the policy makers.
- iv. To analyze the crucial internal strategies and how businesses can harness them for growth.
- v. To develop a framework where important factors for enhancing exports and provide a clear demarcation of roles and responsibilities for collaborative growth.

### **4. RESEARCH METHODOLOGY**

This research project is a pilot project conducted using primary and secondary research methodology. Secondary research was used to gain in-depth knowledge about: (i) Influential factors in international business, (ii) Export scenario in India and comparison with other countries, (iii) Challenges faced by Indian SMEs, (iv) Government schemes and their implementation, (v) Export process and other nitty gritty involved.

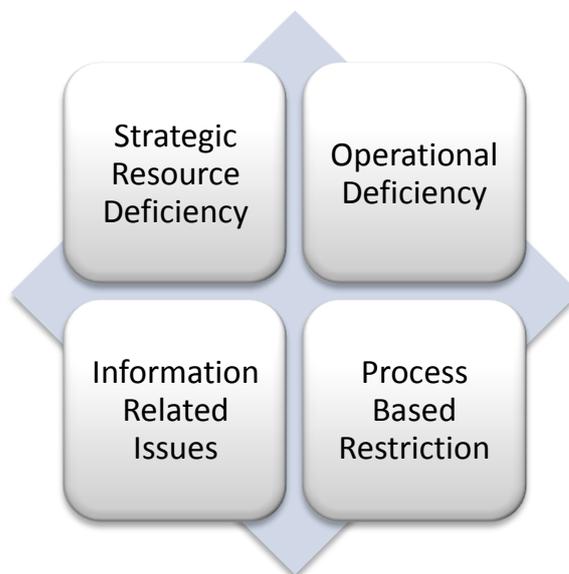
Information for the same was collected through other published research papers, government portals, annual reports of government departments, news articles, journals, etc.

Primary research was done through qualitative techniques by interviewing top management and the decision makers of the SME companies. Interviews were conducted for more than 25 industries belonging to different sectors. These interviews were designed to gain insight into the organization and internal qualities, awareness about government schemes, and major challenges faced by them.

To get a broader understanding of the challenges, feasible solutions, and best practices followed by other countries, academicians and industry experts were also interviewed.

## 5. THEORETICAL BACKGROUND

Bishnoi V (2015) in his study lists four major categories of challenges faced by SMEs: (i) Strategic Resource Deficiency, (ii) Operational Deficiency, (iii) Information Related Issues, and (iv) Process Based Restriction.



For the flourishing of international business in any country, three major contributing factors are support from the government, internal efficiencies of the organization, and market competitiveness.



**Figure 11: Authors' Interpretation, Factors for effective International Business**

## 6. ANALYSIS

### 6.1 Discussions

#### **Discussion 1: Awareness about the government schemes is low thus affecting the reach of these schemes**

When the interviewees were asked to give a number of the schemes they have even heard of even in case they have not used it, most of the companies could identify five or fewer schemes from the list.

Some companies highlighted that there is no proper communication channel from the government bodies to educate businesses about these schemes.

A company highlighted that a lot of hassle is associated while making use of any scheme because of the lack of a platform for understanding the process of implementation. Even the departments are confused regarding the implementation and nitty gritty of the procedures which leads to the amount of getting stuck.

#### **Discussion 2: Government Schemes need restructuring and should be more aligned to the need of the industries**

Flaws and implementation issues were brought out in different schemes. For instance, the RoDTEP scheme suggests that if the raw material is purchased for manufacturing goods only for export purposes and not for domestic consumption then the manufacturer can avail claim on the diesel bill of

the transportation of raw material. But the challenge is identifying that the material was procured for manufacturing export goods only.

Similarly, an issue with the Duty Drawback scheme was drawn out that over a period of time drawback rates have come down significantly. For a small and medium exporter, the final value that comes after exporting is so low that the cost of getting drawback is more than the drawback itself so people let it go. There is so much of hassle, you have to change banking norms and arrangements and documentation that it is totally not worth it.

**Discussion 3: Trade Association need to be fostered and they need to act as a channel for the representation of SMEs**

Companies had suggestions regarding the change of processes and development of markets. The responsibility lies with them of acting as a channel and representing the issues and suggestions of the association to the government.

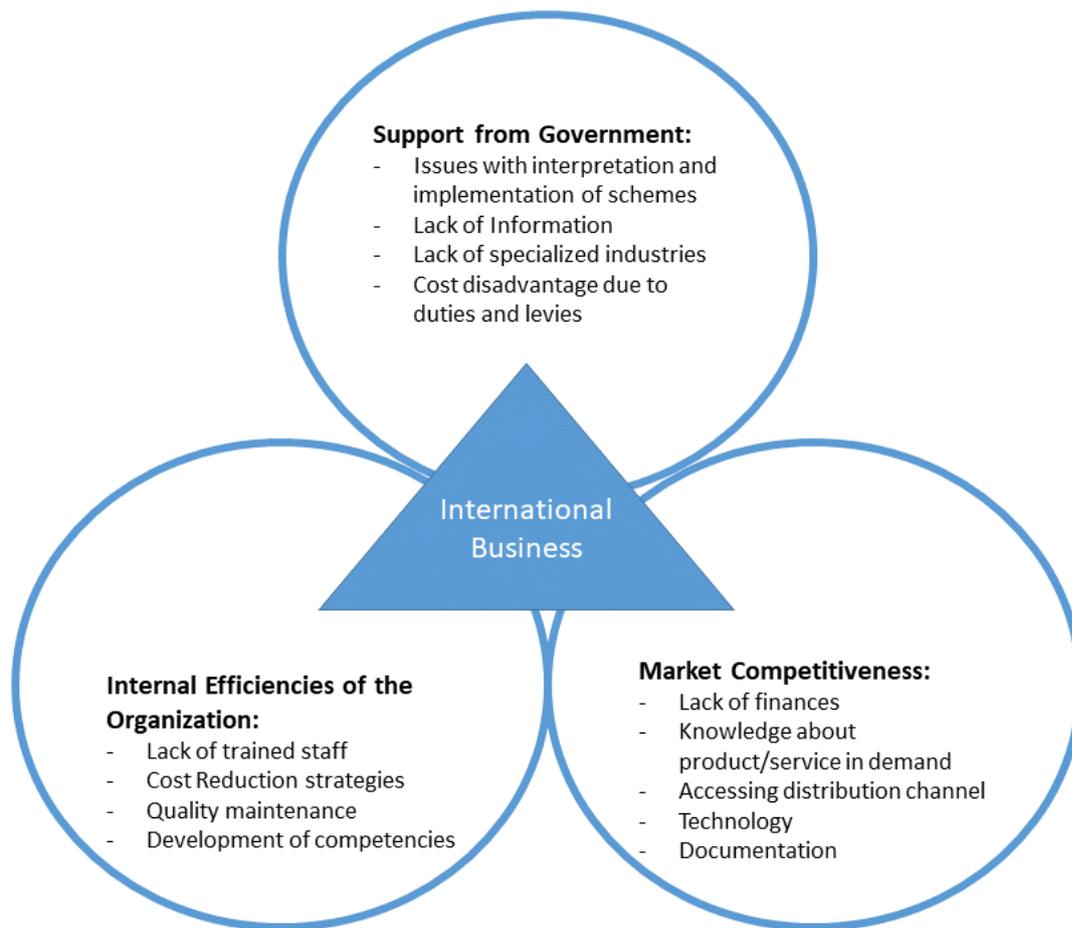
The discussion highlighted that CII and AIAI are extremely active and such associations need the support of companies and government both to act as a bridge between the two.

**Discussion 4: Most important factors to be worked upon internally by the companies are Cost Reduction, Quality Improvement, and Development of Human Resources**

Companies, Industry Experts, and Academicians suggested that the top three qualities that an organization needs to work upon are Cost Reduction, Quality Improvement, and Development of Human Resources.

Cost reduction and quality improvement are of high importance as India is competing in a global market. Where the USA and European countries hold a position for high quality, China has cost differentiating factors associated with its industries. The expectation is India should provide high quality goods at a reasonable price.

Human resource development is of critical importance, there is a lack of resources who understand international business and can help the organization grow its competencies as per the need of the international markets.



**Figure 12: Authors' Interpretation, Challenges to effective International Business**

## **6.2 Internal Efficiencies Of The Organization**

i. **Lack of Trained Staff:** Most of the SMEs lack trained staff who can bring in competency in the firm required for competing at the global level. Companies have to invest a large amount in training them to enhance their skill set as per the requirement.

ii. **Cost Reduction Strategies:** Lack of technology, cost of procuring raw material, costs associated with exports is a strong challenge to cost reduction strategies used by the enterprises. While competing in the International markets Chinese goods pose a tough competition to Indian goods in terms of pricing.

iii. **Quality Maintenance:** Intensive manufacturing countries make use of high end technology and deliver products of high quality. Indian enterprises feel constant pressure to comply with the international standards for successfully running the business in developed countries. It is a huge challenge for SMEs to keep themselves updated with constantly changing requirements.

iv. **Development of Competencies:** Most businesses find it challenging to identify key competencies and align them with the development of business goals. Competency development needs prompt elimination of the inefficient processes and quick adaption to the market condition, thus making it a challenging on-going process for the enterprises.

### 6.3 SUPPORT FROM THE GOVERNMENT

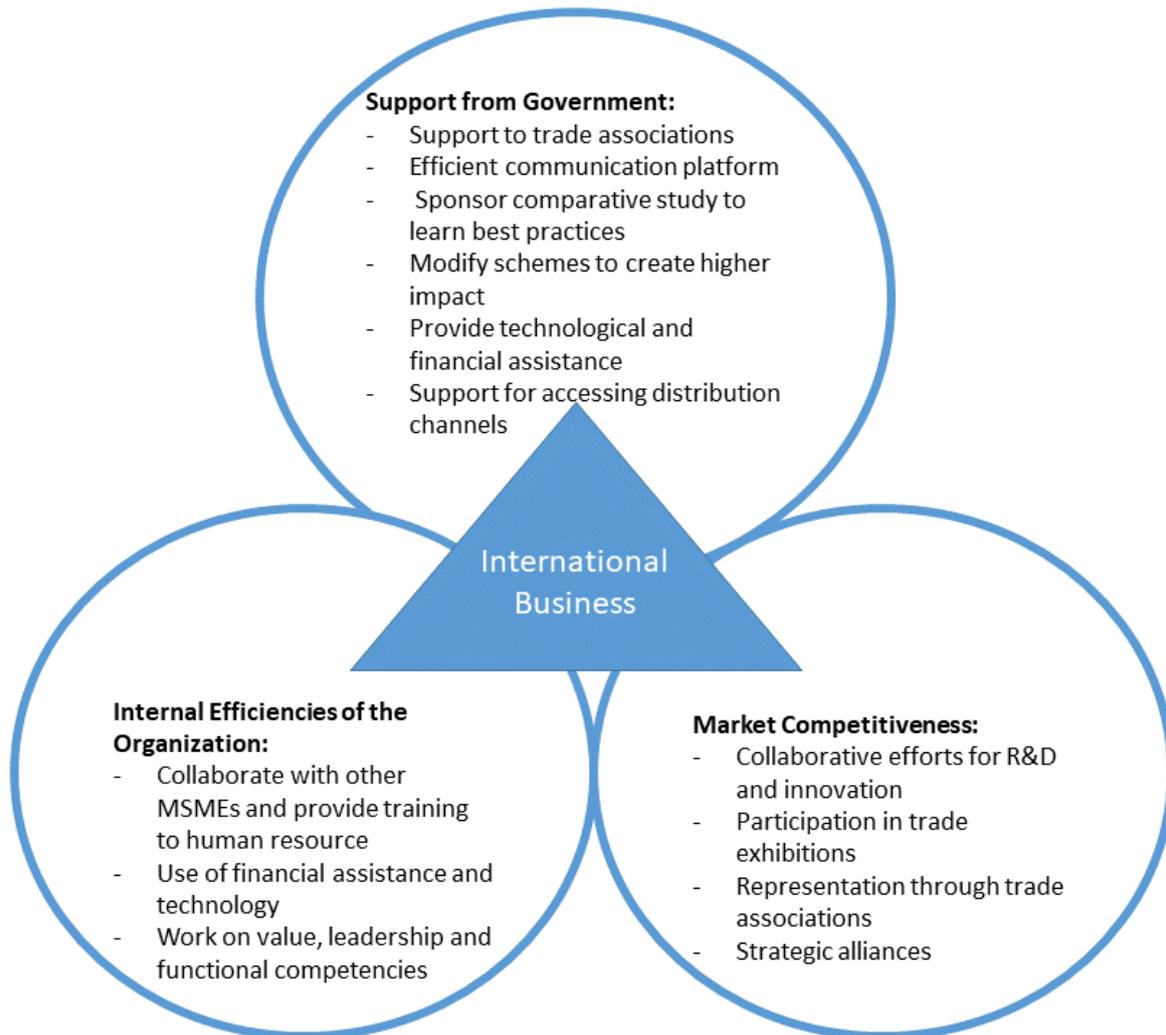
- i. Issues with the interpretation and implementation of the schemes: There is very limited awareness about the government schemes designed to help SMEs boost exports. Enterprises find these schemes time taking and document intensive. There are also major issues with the implementation of these schemes affecting the overall impact.
- ii. Lack of Information: SMEs find a lack of a suitable platform for assimilating information about various procedures, documentation, specifications, rules, regulations, and standards.
- iii. Lack of Specialized Industries: China has set an example by strategic development of its handful SEZs. India is unable to recreate the same magic even after having 28 SEZs and more approved by the commerce ministry.
- iv. Cost Disadvantage Due to Duties and Levies: Industries such as cotton face the issue of cost disadvantage due to duties on import of raw material. A study by CITI (Confederation of Indian Textile Industry) reveals that the export of yarn from India has declined over the years because of uncompetitive cost, and other countries such as Vietnam, Bangladesh, and Pakistan are posing stiff competition.

### 6.4 Market Competitiveness

- i. Lack of Competitiveness: Industry experts and SMEs highlighted that India lacks behind in R&D and innovation and is often adopter rather than the innovator. This takes advantage of entering in the Blue Ocean and generating higher revenue by eliminating first mover advantage. Lack of facilities and investment is the pressing concern leading to a lack of competitiveness.
- ii. Knowledge about Product/Service in Demand: Medium industries fare well at this issue, but small enterprises find it a challenge to know about the product/service in demand and thus are unable to customize their offerings according to the demand.
- iii. Accessing Distribution Channel: Choosing the correct distribution channel comprises of modes of reaching the target audience through different marketing factors. It is vital to any organization because it increases sales volume by providing customer satisfaction with the best quality on time. MSMEs have hurdles identifying such channels thus impacting their profitability and growth.
- iv. Technology: The major issues that make technology and its usage a challenge for SME are: cost, lack of skilled manpower, low awareness of the benefits of technology, security & privacy, and poor infrastructure (Punnet and Davinder, 2014)
- v. Documentation: Documentation is a tedious task that requires trained staff, also it varies from country to country. SMEs agree that documentation is extremely vital for securing the risk and having efficient paperwork but they also admit that they struggle to find human resources who are trained to understand and manage it.

## 7. FINDINGS AND FUTURE SCOPE

### 7.1 Findings



**Figure 13: Authors' Interpretation, Key to the Challenges identified**

#### A. Enhancing the internal efficiencies of the enterprise

The responsibility of increasing internal efficiency lies in the enterprise itself to be strategically ahead of the competition.

For the development of human resources, two major factors are attracting talent and providing training. For attracting talent SMEs need to provide motivation and growth environment along with compensation and incentives according to the industry standards. Industry experts should be included in the decision making team so as to get exposure to industry best practices.

Training can be provided in collaboration with other SMEs from the same industry so as to enhance the learning and flexibility of different processes.

The enterprises need to adapt to the latest technology and keep themselves abreast of rapidly changing scenarios to stay competitive. Technology is the biggest enabler in implementing cost reduction and quality management strategies.

Categorization of value (core), leadership, and functional competencies need to be done and an action plan should be drafted for their development. Core competency is based on the quality, customer satisfaction, and innovativeness of the firm. The need for leadership competency comprises of decision making and problem solving capabilities. The technical and specialized skills account for functional competency.

These competencies should be evaluated individually and worked upon accordingly.

### **B. Increasing the support from the government**

The government has a key role in boosting exports from the MSME sector. The Indian government is constantly upgrading and enhancing its policies to strengthen the sector.

The need of the hour is increasing awareness about schemes & initiatives, and efficient feedback from the enterprises to bring in the flexibility in the policies.

Industry and Trade Associations such as CII, AIAI, FICCI, NASSCOM, etc. should be strengthened to act as a bridge between government and enterprises. They can be an efficient channel for representation and communication and can give effective inputs for the drafting of policies.

Many SMEs refrain from making use of government schemes because of cumbersome procedures and documentation. The assistance should be provided for the use of schemes and they should be upgraded to increase the outcome and reduce the bottlenecks.

In trade fair, country pavilion does not attract much audience. They should be marketed well for crowd pulling. Also, industry specific trade exhibitions should be organized so as to cater to the correct audience.

Lack of credit is a major problem highlighted by SMEs during the research. Policies should be implemented to ensure the availability of credit for exports.

To increase the competency of Indian firms at a global level, technology aid should be provided. Subsidizing the purchase of machinery, I.T Development assistance is required.

### **C. Sustaining in competitive markets**

Innovation and Research & Development are expensive and require specialized technology, skills, and human resources thus making it an expensive affair. To excel at this and compete the stiff competition posed by Chinese industries and other Developed countries, collaborative effort is required.

Enterprises should pool their resources for sharing the cost of innovation and reaping maximum benefits.

International trade exhibitions may seem an expensive affair, but they provide the best platform for networking in the business. Online platforms are indeed a suitable platform for generating leads for the business, but trade exhibitions create a lasting impression, provides direct sales opportunity and most importantly helps in building brand proximity.

The enterprise should associate itself with trade/industry associations and provide a contribution to the goal of strengthening the industry.

Strategic alliances if implemented correctly can generate a high number of benefits such as the addition of competitive skills, entry into new markets, risk reduction, increase in intellectual capital, and leapfrogging the competition.

### **7.2 Significance Of India In International Business**

India can be a major contributor to International Trade by boosting its SME sector. There are many products such as pharmaceutical products, cereals, clothing & accessories, cotton, fish, meat, miscellaneous textile, coffee, tea, spices, mineral fuel including oil, gems, precious metal, machinery including computers, vehicles, organic chemicals, electrical machinery, iron, steel, etc.

India is located between highly populated trading partners like China, Pakistan, and Bangladesh. India shipped goods worth US\$323.1 billion around the world.

India has trained engineers, scientists, and researchers who are coveted globally for their technical knowledge. Also, labor is cheaply available so as to cut the cost of manufacturing.

Different success stories suggest that India's young population, government schemes, developing technology, etc. make India a lucrative location for manufacturing operations.

### **7.3 Limitations**

Considering the sheer difference of scale of operation in small and medium enterprises, the inferences and solutions proposed are generalized, but they may vary as per the individual sector according to the investment made. Thus sector specific approach is required for the elimination of challenges from the root.

For more efficient analysis of the data, the research can be repeated with a larger sample size so as to get a better understanding of the sectorial issues.

### **7.4 Future Scope**

The prime objective was to analyze the major roadblocks in the process of going global for Indian SMEs. In future this study can be extended in different directions to gain better and granular understanding and come up with a specific solution through the following ways:

- Conducting quantitative study by preparing a questionnaire around the postulated issues and analyze their impact and relation to each other. This will also help in gaining deeper insight into how these challenges affect different industries and services differently.

- A comparative study with other emerging economies will help in understanding how other nations are boosting International Business for SMEs. Ideas and learnings can be replicated if suitable to the Indian industrial environment.
- In the future, start-ups can be included for a comparative study for the identification of synergies and scope of collaboration. Through collaboration, SME and Start-ups can achieve the common goal of geographic expansion and higher revenue generation.
- The model in Figure 1, 2 and 3 can be used to conduct a similar study for different countries and analyze how different solution is required for the different country because of the cultural, economic, social and technological situations across the countries.

## 8. CONCLUSION

SME sector is the growth engine of the economy and provides immense growth opportunity to the domestic industry of the country.

International Business is key to expand over the geographical bounds and unleashing the true potential by bringing in more business opportunities.

The research identifies that the reach of government initiatives and the scheme is very low among SMEs and the need for communication platform is identified for the same.

There is a challenge with the design of schemes and ambiguity regarding the implementation part. Also, the processes are cumbersome and time consuming. Through feedback, processes can be smoothened out. The use of digital platforms will help in increasing the speed of the processes. Not only SMEs but the government department should also be trained well about the benefits of the schemes and its implementation.

Trade Associations and Industry Associations are active in India and they are the right channel for the representation of the enterprises. SMEs must associate with them and work in collaboration to modify the existing policies and bring in new policies that can boost the growth of the industry.

Enterprises also need to constantly strive to improve internal strategies to stay competitive at a global level. They should always stick to the learning curve and be adaptive to the new demands and technological changes.

The three required factors for boosting exports from SME sectors are support from the government, working on the internal capabilities of the organization, and staying abreast of the competitiveness of the global markets. Through collaborative efforts of all the stakeholders, Indian SME can expand even better in International Business and contribute more to the growth of the industry and the nation.

N.B. This paper was written pre Covid 19 pandemic. The country's economy suffered due to the implementation of the lockdown. India's finance ministry extended support to save the dwindling

GDP which suffered a downturn The Indian government has been doing its bit to salvage the disrupted supply chains and shipping routes. It has given sops for SMEs which amongst others includes a three month credit extension for exporters and several other reform commitments.

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# ENCOURAGING THE RETURN TO MUSEUMS THROUGH THE THROUGH ENRICHING OF THE EXPERIENCE AND THE FEELING OF PRIDE

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## ABSTRACT

The aim of the current study is to investigate the effect of museum experiences on visitors' willingness to recommend a museum and desire to return, based on the influence of the perception of coolness and the feeling of authentic pride. A sample of 308 usable questionnaires retrieved from four Lisbon (Portugal) museums provide a good understanding of the drivers of revisit and recommend intentions.

Museum Atmospheric Cues contribute to the perception of Museum Coolness and the feeling of Authentic Pride, which, in turn, have an effect on the intentions to Recommend and Revisit a museum. The perception of Museum Coolness has a stronger influence on both intentions to Revisit and Recommend.

*Keywords: Museum Experiences, Atmospheric Cues, Museum Brand Coolness, Authentic Pride, Revisit, Recommend*

## INTRODUCTION

Cultural attractions, such as museums, constitute sources of cultural diversity, personal development, and social cohesion, apart from enhancing employment and income (Brida *et al.*, 2011). In 2018 Portugal received 19,494,106 visitors to museums (INE, 2019), of which 9,287,559 were foreigner visitors. Moreover, regarding statistics of DGPC (2018) about monuments, museums, and palaces entrances, 33.3% of the visits were to museums. This evidences the importance of museum management in Portugal since it attracts both locals and foreigners from all over the world.

Statistics show the relevance of museums in the overall economy of Portugal, but what exactly leads people to enjoy a museum, to desire to come back and to recommend it? Several researchers have studied the impact of atmospheric cues (Loureiro, 2019), of perceived authenticity (Carù *et al.*, 2017; Loureiro, 2019) and of satisfactory museum experiences (Antón *et al.*, 2018) in the willingness of museum visitors to revisit a museum and/or recommend it to others. However, no study has yet

assessed the effect of visitors' perceived museum coolness and the authentic pride they feel after a visit in those revisit and recommendation intentions.

By applying the concept of Brand Coolness to the museum context for the very first time, and using the Authentic Pride construct in an innovative way, the present study aims to answer the following research questions: how can the museum experience enhance visitors' perception of coolness and feeling of authentic pride? Can perceived coolness and authentic pride influence visitors' intention to revisit and recommend the museum?

## **THEORETICAL FRAMEWORK**

### *Museum Atmospheric Cues*

Loureiro (2019) defines four main factors that can help appraisal inside of a museum. The first is design, which relates to characteristics such as facilities, colors, and permanent exhibitions and the second is lighting, this is, the adequacy of the lighting. Then, learning, which regards to the interest of visitors and the meaning that it has for them. Does the exhibition add to the visitor's knowledge? Does it meet their expectations? Finally, the fourth factor is staff, which considers the people working in the museum and how they present themselves and communicate with the visitors.

### *Museum (Brand) Coolness*

Regarding brand coolness, studies have confirmed that the word "cool" has a positive valence and can be used as a synonym to "I like it" (Belk et al., 2010). Additionally, the coolness literature proves that enhancing visitors' perceived coolness leads to higher levels of tourist satisfaction (Chen and Chou, 2018). Consequently, the probability that the visitor will revisit and recommend the destination increases. According to Warren and Campbell (2014), the concept of coolness is socially constructed, because objects and people are only cool if others consider them so. Also, coolness is subjective and dynamic since it depends on personal experiences and it can vary throughout time.

In the museum context, experiences are created through four atmospheric cues: design; lighting; learning, and staff (Loureiro, 2019). The final goal for museum managers is to provide a space where visitors feel comfortable and happy, having the possibility to enhance their knowledge about specific or diverse themes. Both ambient and design aspects provide not only a memorable experience, but also boost visitors' inclination to revisit and recommend some cultural attractions (Bonn et al., 2007).

Taking all of this into consideration, the following can be hypothesized:

**H1: The Museum Atmospheric Cues are positively associated with the perception of Museum Coolness**

### *Authentic Pride*

Researchers in the psychology field have demonstrated that pride is a critical emotion in the psychology context (Tracy and Robins, 2007). Authentic pride is a feeling associated with internal and controllable causes (Loureiro, 2019), success-oriented, related to genuine self-esteem and agreeableness (Kong *et al.*, 2017). This type of pride is connected to hard work, perseverance, and effort (Huang, 2014).

Authentic Pride is linked to perceived authenticity, which is a motivational factor for museum visitors (Knudsen *et al.*, 2016; Loureiro, 2019). If visitors believe that a museum is genuine and trustworthy, they are more prone to feel they have achieved something with the visit, and also more willing to share their experience (Loureiro, 2019). According to the literature, an experience designed by museum managers can be crucial in the perception of authenticity and the materialization of a brand identity in the consumer's mind (Carù *et al.*, 2017).

Therefore, the second hypothesis is as follows:

### **H2: The Museum Atmospheric Cues are positively associated with the feeling of Authentic Pride**

#### *Intention to Recommend*

According to Holbrook and Gardner (1993) and Antón *et al.* (2018), the recommendation of a museum after its visit can be translated into content generation, which refers to visitors sharing their experiences with others in the online world. For this purpose, they can publish reviews and comments on social networks and travel websites, which are seen as reliable by others (Presi, *et al.*, 2013; Antón *et al.*, 2018; Rosado-Pinto and Loureiro, 2020).

When talking about a recommendation, another dominant concept is word-of-mouth (WOM), which is information shared by past consumers with potential consumers, based on their past experiences (Wang *et al.*, 2016). WOM is a powerful tool for purchase decisions because it consists in information communicated by people who are considered trustworthy (Wang *et al.*, 2016; Day, 1971) rather than being communicated from the brand itself. Nowadays, with the Internet, traditional WOM has gained the electronic element which can constitute an influential social interaction and can have very wide dissemination (King *et al.*, 2014).

Antón *et al.* (2018) have concluded that content generation mainly happens when the visitor is satisfied with the visit. On the other hand, engaging in word-of-mouth interactions can occur whether the experience is positive or negative (King *et al.*, 2014). Therefore, the perception of coolness in the museum context is deeply relevant, since the probability of the visitor recommending the cultural attraction increases once the level of perceived coolness is high (Chen and Chou, 2018). Hence, another hypothesis is:

**H3: The perception of Museum Coolness is positively associated with the Intention to Recommend the museum*****Revisit Intention***

Although the perception of coolness is subjective and dynamic, it is agreed upon the literature that something that is cool is seen as positive (Warren and Campbell, 2014; Belk *et al.*, 2010). Additionally, people tend to evaluate a high quality and innovative product as cool (Sundar *et al.*, 2014). This can also be applied to the museum context, where when visitors regard the museum as being different, unique, and valuable, it is suggested they consider it a cool museum.

A growing body of literature has established the importance of creating the perception of coolness in museum visitors. By generating that perception, museum marketers hope to encourage behaviors from visitors that will enlarge their experience. One of those behaviors is intensification, the intention to extend the museum experience by, for instance, participating in the museum's extra activities and buying items from the museum shop (Holbrook and Gardner, 1993; Antón *et al.*, 2018).

The visitor's intention to enhance the museum experience relates to the willingness to revisit it. According to Batra *et al.* (2012), when someone is passionate about a brand, he/she will invest time and money in interactions with it. Loureiro and Ferreira (2018) apply this to museum context, confirming that when visitors identify themselves with the museum and are absorbed in it, the passionate desire to revisit it can emerge.

Moreover, the literature proves that when visitors perceive museums as cool, their link to the museum will increase (Loureiro and Ferreira, 2018) and thus the probability they will return to revisit it also increases (Chen and Chou, 2018; Shahrabani *et al.*, 2019). For all the above reasons, the following hypothesis is:

**H4: The perception of Museum Coolness is positively associated with the Intention to Revisit the museum**

Loureiro (2019) claims that the feeling of authentic pride can be a predictor of word of mouth, as visitors who feel that the museum is trustworthy and genuine will be more encouraged to communicate their experiences and advocate the museum. Similarly, if the visitor considers the visit useful and meaningful, he is more prone to speak about it with others. As stated above, the recommendation by the visitor can be done either through content generation or word-of-mouth.

Literature also suggests that if the visitor has a feeling of authentic pride, he/she will want to participate in further activities of the museum, give advice to the managers and follow the museum's social media pages (Holbrook and Gardner, 1993; Antón *et al.*, 2018). Likewise, this feeling can lead visitors to have a true desire to return to the museum and visit its exhibitions once more (Loureiro and Ferreira, 2018). Thus, having this in consideration, the last two hypotheses are:

**H5: The feeling of Authentic Pride is positively associated with the Intention to Recommend the museum**

**H6: The feeling of Authentic Pride is positively associated with the Intention to Revisit the museum**

## METHODOLOGY

The questionnaire was designed online, but it was mostly distributed offline, near the four selected museums: the National Coach Museum; the Museum of Art, Architecture, and Technology (MAAT); the National Tile Museum, and the Orient Museum. Data was collected for two months, from mid-January to mid-March 2020. The constructs and items used in the questionnaire were based on the literature review and measured with a 7-point Likert-type scale. Museum Atmospheric Cues were measured based on Loureiro (2019), Museum Coolness based on Warren *et al.* (2019) and Authentic Pride based on Loureiro (2019) and Loureiro and Ferreira (2018). Revisit Intention was measured with a scale adapted from Bonn *et al.* (2007) and Kottasz (2006), a scale from Loureiro (2019) and another from Antón *et al.* (2018). Finally, Recommend Intention dimensions were measured with scales from Antón *et al.* (2018), Loureiro and Ferreira (2018) and Loureiro and Kastenholz (2011). A sample of 308 participants was obtained, of which 71.1% are female and 28.9% male. Most of the respondents belong to the 18-24 age group (35.7%), followed by the 25-34 age group (21.8%).

## RESULTS

After obtaining 308 questionnaire responses, data was adapted to fit the chosen statistical program – IBM SPSS Statistics 26. Once the variables were computed appropriately, it was possible to conduct several analyses. First, to ensure the internal consistency of the measurements, the Reliability Analysis was conducted, testing the Cronbach's Alpha coefficients (see Table 1). All of these values were above 0.8, which represents good consistency of the items in each scale (George and Mallery, 2003).

| <b>Construct</b>       | <b>Cronbach's Alpha</b> |
|------------------------|-------------------------|
| Atmospheric Cues       | .910                    |
| Museum Coolness        | .949                    |
| Authentic Pride        | .947                    |
| Revisit Intention      | .849                    |
| Intention to Recommend | .816                    |
| Sum Total              | .876                    |

**Table 5 - Reliability Analysis**

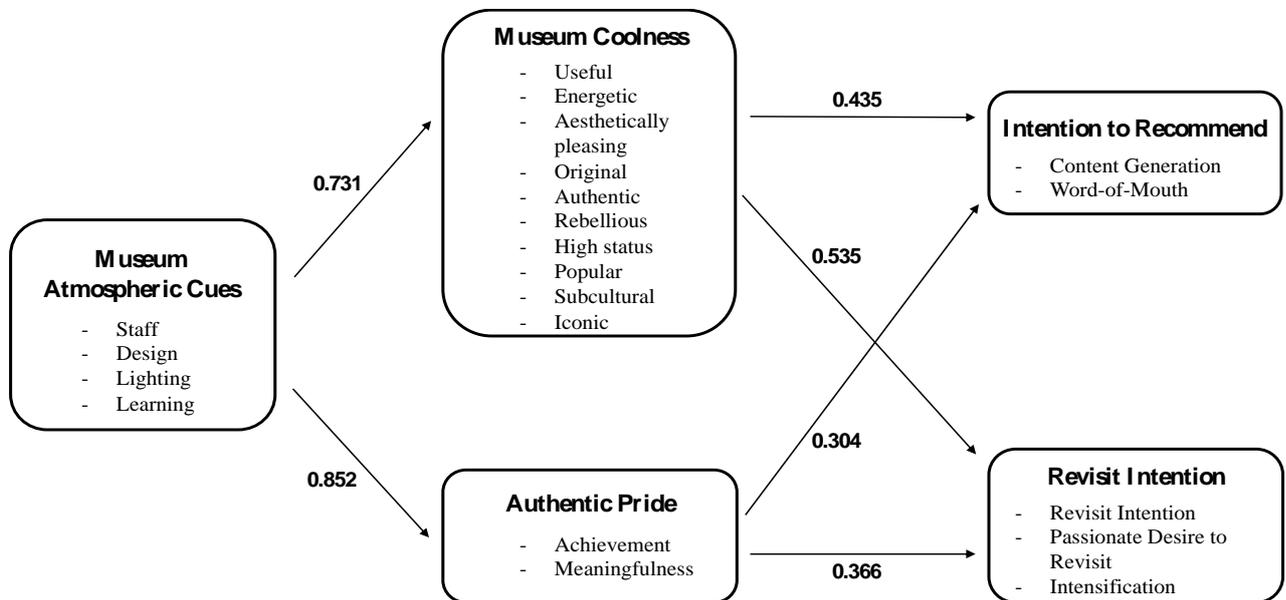
Then, the software was used to execute Frequencies and Descriptive Statistics, as well as Simple and Multiple Linear Regression Analysis. To test the six hypotheses of the model, this is, considering the different independent variables, Multiple Linear Regression was conducted. As observed in Table 2, all hypotheses of the theoretical framework were supported, being possible to highlight the independent variable with higher effect in the dependent variable for each hypothesis.

| Hypotheses                                    | Strongest X Variable | Beta  | P Values |
|---|----------------------|-------|----------|
| H1: Museum Atmospheric Cues > Museum Coolness | Design               | 0.434 | 0.000    |
| H2: Museum Atmospheric Cues > Authentic Pride | Learning             | 0.330 | 0.000    |
| H3: Museum Coolness > Intention to Recommend  | Useful               | 0.327 | 0.000    |
| H4: Museum Coolness > Intention to Revisit    |                      | 0.346 | 0.000    |
| H5: Authentic Pride > Intention to Recommend  | Achievement          | 0.320 | 0.000    |
| H6: Authentic Pride > Intention to Revisit    |                      | 0.460 | 0.000    |

**Table 6 – Hypotheses Testing**

For the last four hypotheses, regarding the constructs as a whole, both Simple and Multiple Linear Regression were used to take conclusions (see Figure 1).

**Figure 14 - Theoretical Framework with Beta values**



**CONCLUSIONS**

From the results there is evidence that Design is the variable from Museum Atmospheric Cues that more highly affects the perception of Museum Coolness. Regarding the feeling of Authentic Pride, this

is specially influenced by the Learning variable of Museum Atmospheric Cues, in concordance with Loureiro (2019). From the several variables that constitute Museum Coolness, Useful is the one that is more highly associated with both intentions to Revisit and Recommend a museum. Finally, considering the Authentic Pride construct, Achievement is the dimension that has a stronger effect on both intentions to return to the museum and to suggest the visit to others.

The final four analyses allow to state that all the constructs are positively related among themselves. Museum Atmospheric Cues have a higher association with the perception of Museum Coolness than with Authentic Pride. Moreover, results show that if museum visitors' perceive a museum as cool and develop a feeling of accomplishment with the visit they become more willing to return to the museum, rather than recommend it. The perception of Museum Coolness influences more strongly both intentions to Recommend and Revisit than Authentic Pride.

Regarding managerial Implications, it was uncovered in this study that museum managers must focus on keeping the décor and display of exhibitions up-to-date and try to renovate, when possible, the display of the permanent exhibition. Furthermore, the museum experience should be enhanced with the use of games and quizzes throughout the visit, as well as on an online platform. Managers would, therefore, respond to the visitors' necessity learning, while building a relationship with them. Moreover, there should be online workshops, Q&A and tours to engage with visitors while they are quarantined or simply cannot go to the museum.

Some limitations were found in this research, as expected, and they should be interpreted as future research opportunities. First, one of the limitations concerns the fact that the sample is mostly characterized for younger people. Similarly, female respondents represent more than half of the sample (71.1%). Furthermore, as the study was conducted in Portugal, the vast majority of the participants were Portuguese (82.8%). Thus, future research could consist in a more culturally diverse sample that is balanced between the different age groups and genders. Additionally, future studies could use the theoretical framework and apply it to different countries and cultural attractions.

For the first time in the tourism literature the concept of Brand Coolness was studied, more specifically in the museum context. Although the constructs of Atmospheric Cues and Authentic Pride are retrieved from previous studies (Loureiro and Ferreira, 2018; Loureiro, 2019), the relationships investigated between them are innovative.

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## THE CHALLENGE OF KNOWLEDGE MANAGEMENT IN HEALTHCARE

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### ABSTRACT

The healthcare system is a knowledge-driven, interdependent set of major domains experiencing fundamental change due to multiple factors such as advances in science and technology, patient expectations, and government funding and oversight. This paper examines the escalating role of technology in healthcare, recent advances in organizational learning and knowledge management, and how healthcare professionals can leverage the knowledge associated with implementing and integrating new technologies to improve patient care and system effectiveness by institutionalizing it in systems, structures, procedures, and strategy. We conclude with a call for research and scholarly inquiry involving experts in knowledge management, organizational change, and healthcare.

*Keywords: Knowledge management, Change management, culture, healthcare, technological change*

### INTRODUCTION

Healthcare is distinguished world-wide by its importance, expensiveness, and rapidly changing technology. New technologies can dramatically improve patient care while escalating the cost, increasing the demand for access to such care to the extent it can become a political issue, and placing new demands for knowledge on the multidisciplinary teams of caregivers called to implement them effectively and efficiently. These advances in care also change the way the system's major domains relate to each other often resulting in structural, economic, strategic, and professional realignments and adjustments. All of this change throughout the system creates the dynamic complexity Senge (1990) hypothesized as the cause of unexpected consequences. Changes in the healthcare system are well-known phenomena because we experience so many of them in our personal lives. Yet, these changes are under-studied by the scholarly community with expertise in knowledge management and organizational change likely due to the fact that healthcare is the domain of healthcare professionals. We therefore begin this article by exploring the history of technological change in healthcare.

Healthcare has experienced decades of improved services, much of it driven by advances in science and technology (Bowden & Smits, 2012). Technologies formerly seen only in science fiction novels or Hollywood blockbusters are now becoming a reality in everyday life and throughout the healthcare system. Such technologies include the use of virtual reality therapy for pain management; virtual assistants to facilitate care management and coordination; drones and smart-phone enabled ride and delivery service to transport time-sensitive medical supplies; 3D printed biological implants; as well as the use of artificial intelligence to mine medical records, to design treatment plans, and to link genetic information to define and deliver personalized care. Healthcare providers, hospitals, payers, and manufacturers are all trying to determine how to best leverage existing technologies and bridge them with new health technologies that drive efficiencies in care delivery and improved patient outcomes and engagement. Meanwhile, with an increasing trend towards consumerism, patients are more actively seeking better experiences and outcomes in a dynamic and interconnected, technology-oriented environment. Healthcare is experiencing, and will continue to experience, a virtual explosion of new technologies resulting in greater complexity, technology dependence, and the need for teamwork for which new knowledge is a critical element.

New health technologies are essential for a functional health care system, as is a paradigmatic culture shift towards a mindset that supports shared learning and creates a “culture of change” in order to spur dissemination across the multiple components and groups within the system itself. As Bowden and Smits (2012) noted, culture is the accumulated results of a defined group’s experience-based learning, develops at multiple levels of organized activity, and can be one of the most potent drivers of change. As Bengoa et al (2009) noted, culture is an important consideration in knowledge transfer. Historically, advances in science and technology have been important drivers of change. Such advances have enabled the delivery of health care services which have steadily increased in dynamic complexity over time (Figure 1). This integration and enablement have been so dramatic that healthcare is now highly dependent on technology to provide even routine services.

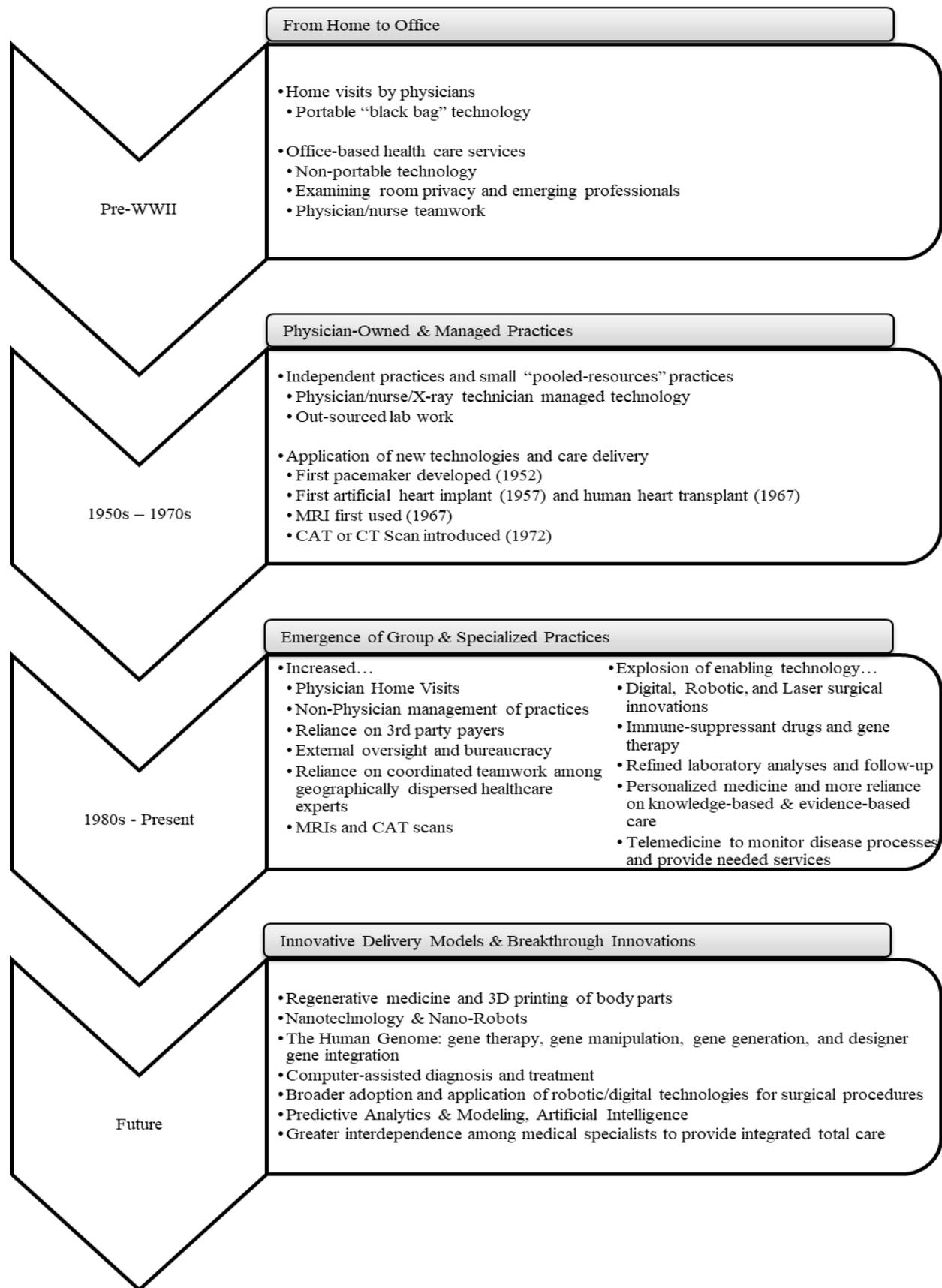


Figure 1. Timeline for select technological advances and health care delivery progression

While improved technology drives change, strong cultures resist it in order to protect the status quo. While we recognize that cultural issues are salient, our focus here is on the challenge of knowledge management within the healthcare system, on its relationship with continuously evolving and developing technology, and on the probable impact on care delivery quality and costs. Specifically, in this paper, we focus on the potential benefits of capturing and applying the knowledge developed by skilled professionals in healthcare through shared experience as they discharge their responsibilities, often in teams, often applying new technologies. Moreover, we describe how such knowledge is developed through experience, how advances in assessing this knowledge can bring it to the level of application, and how this application can evolve into best practices at the organizational level and into standards of practice at the level of the professions involved. Finally, we emphasize the important role leadership can play in promoting learning organizations, assessing experience-based knowledge, and leveraging this knowledge for continuous quality improvements.

## **EVOLVING ORGANIZATIONAL COMPLEXITY AND TECHNOLOGY DEPENDENCE IN HEALTHCARE**

According to Shapin (2007), “just as innovators commonly understand the fundamentals of a technology better than subsequent users, so users can acquire knowledge that would never have occurred to the inventors” (p. 148). The user-derived knowledge referred by Shapin evolves from the tacit knowledge which develops from experience. Such knowledge is the starting point for our discussion of the knowledge management challenges at play as the healthcare system implements new technology and learns to use it in ways that continuously improve the quality and efficiency of patient care. Similar knowledge management challenges exist in other sectors such as supply chain management (Fletcher & Polychronakis, 2007). Experience produces tacit knowledge – which, if captured, refined, and applied – can improve treatment practices. Given the volume of new technologies in healthcare, systematically leveraging lessons from experience in order to improve care requires a planned, strategic approach to knowledge management. We begin our discussion of such an approach by briefly reviewing how tacit knowledge evolves into more explicit forms of institutionalized knowledge-in-practice, and by reviewing the models and tools available to enable communities of practice.

While deeply ingrained tacit knowledge, intuited by individuals via experience, is virtually impossible to capture, tacit knowledge emerges in group settings through dialog with others experiencing the same work-based phenomena. Team members learn from their collective experience and each other (Edmonson, 1999, 2007; Garvin, Edmonson, & Gino, 2008; Smits, Bowden, Falconer, & Strasser, 2014). Teams play a fundamental role in capturing individual tacit knowledge and moving it

to broader organizational use. Edmondson (2002) and Crossan, Lane, and White (1999) contend that intuited tacit knowledge developed by individuals is interpreted and integrated via group-level processes. According to Edmondson (2002), “collective learning is inherently local” (p. 142) because it transpires among members of teams and small groups.

In the early 2000’s, with the increased use of multidisciplinary teams came increased research focused on effectiveness. This research suggested that strong collective identification among team members was linked to greater team effectiveness Van Der Vegt and Bunderson (2005). Moreover, it suggested that teams were more productive when members understood each other’s mental models and engaged in cross-learning (Huber & Lewis, 2010), when the members experienced a deep level of trust and exchanged tacit information (Jones & George, 1998); and when the members were capable of implicit coordination to deal with dynamic complexity and unplanned change (Rico et al., 2008). Similarly, research by Somech and Drach-Zahavy (2011) on well-functioning primary care teams in Israel found that they exchanged information to find new and improved ways to meet patient needs. To sum up, such competent teams operating in healthcare settings, described by Loftin and Straker (2011) as “complex adaptive systems,” engage in greater levels of collaboration to improve patient care.

Individuals and teams are assigned tasks in accordance with the organization’s purpose and strategy, and are given the resources, including technology, the organization has available for task completion. Over time, experience helps individuals and teams make nuanced adjustments that improve the efficiency and effectiveness of the technology for accomplishing the designated outcomes. These nuanced adjustments start as novel insights by users of the technology – intuitive in nature and difficult to articulate and formalize because they are often specific to a given situation (Crossan et al., 1999; Ambrosini & Bowman, 2001; Nonaka, 1994). The experience-based knowledge on which these adjustments/improvements are made is referred to as tacit knowledge. Analyzing the processes by which organizations acquire knowledge (organizational learning) and apply it (knowledge management) involves tracking tacit knowledge from its origin (experience) through its institutionalization in systems, structures, procedures, and strategy (Crossan et al., 1999; Argote, 2005).

Andrews (2017) summarized the work of several scholars stating that “tacit knowledge is difficult to formalize, tends to be personal, is embedded in practice, and is context specific” (p. 39). Raelin (1997) described tacitness in a more collective context describing communities of practice evolving around shared learning and a high degree of synchronization, eventually becoming so tacit (mutually understood and acted upon) that “the work becomes effortless” (p. 570). Rather than promoting unconscious performance, however, Raelin is in fact advocating communities of practice “to develop their mutual expertise” by making mental models explicit through action learning (Raelin, 1997, p.

570). Further, the notion of action learning can be extended to knowing-in-action; according to McIver et al. (2013), “tacit knowledge is a form of knowing that is inseparable from action because it is constituted through doing” (p. 600).

In brief, health care providers, individually or in teams, begin using a new technology and over time learn by doing. This learning is valuable to the individual and the team, but does not lead to institutionalized improvements unless the tacit knowledge is made explicit. That means we need to capture the tacit knowledge and manage it for performance improvement. Ambrosini and Bowman (2001) suggested a method of “causal mapping” to capture tacit knowledge. Their methodology involves conducting semi-structured interviews with key individuals and focus groups to create “causal maps” defined as “a form of cognitive map that incorporates concepts tied together by causality relationships” (p. 817). Their model starts by identifying the key organizational constructs linked to success for the entity under investigation, and then seeks to discover the primary causal factors which enable this success. The mapping process uses causal questions and stories. The causal mapping model from Ambrosini and Bowman (2001) identifies four levels of skills with the most tacit being inaccessible (Level A), and the least tacit being primarily explicit (Level D). Causal mapping focuses on the middle two levels which consist of skills that can be indirectly articulated through storytelling and metaphors (Level B), and skills that can be articulated when a skilled researcher asks the right questions (Level C).

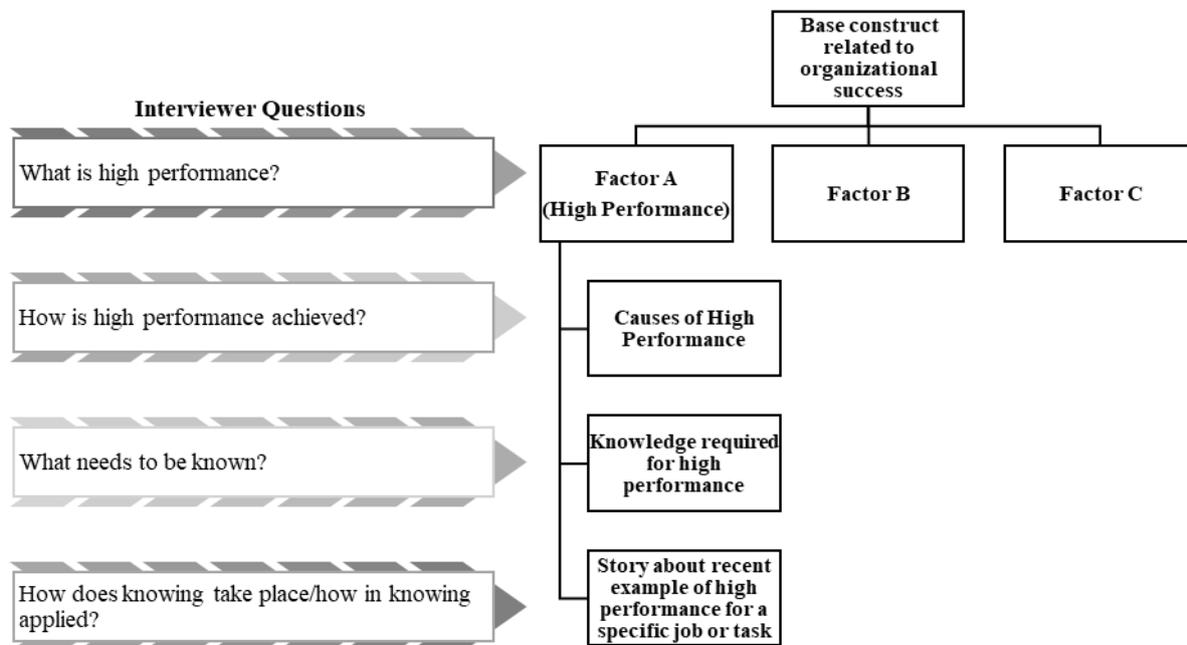


Figure 2. *Integrated diagnostic model: casual mapping and knowledge-in-practice*. Adapted from Ambrosini & Bowman, 2001 and McIver, et al (2013)

Andrews (2017) further refined the causal mapping methodology by using questions from McIver et al.'s (2013, pp. 605-606) Knowledge-In-Practice Model to elicit more work specific responses to the level C tacit knowledge (Figure 2)

Having mapped tacit knowledge and demonstrated how it is used to achieve desired outcomes, the next task is to manage it to improve organizational functioning. Here we turn to the 4I model developed by Crossan et al. (1999) and further operationalized by Lawrence, Mauws, Dyck, and Kleysen (2005), who argued that "organizations are inherently political and consequently so are the processes of organizational learning" (p. 180). The 4I model of organizational learning (Crossan et al., 1999) is a multi-level process that takes knowledge from a tacit level to an explicit, mandated, organizational level:

- *Intuiting* – individuals develop novel insights based upon their experience
- *Interpreting* – explaining the novel insight to oneself and others through dialogue
- *Integrating* – the group-level process of developing shared understanding and taking action
- *Institutionalization* – embedding the learning that has occurred among individuals and groups into the organization through systems, structures, procedures and strategy.

However, Lawrence et al. (2005) contend the 4I process only happens when ideas are pushed forward by engaged individuals using the political processes that promote change within a given organization: "Without that political behavior, new ideas may be generated by individuals, but organizations will never learn" (p. 190).

To summarize at this point, we contend that healthcare professionals given new technology to care for patients will develop valuable tacit knowledge while using it; that tools and models exist to capture and manage such knowledge for improved care; and that there is a professional imperative to accelerate organizational learning and knowledge management systems.

## **PRACTICE IMPLICATIONS**

It is always difficult to direct recommendations at healthcare as a total system because of its diverse components and functions, and the dynamic complexity within and among them (Bowden & Smits (2011). See Figure 3 for the major domains we see as operating with various levels of interdependency.

Granted that healthcare's multiple settings already foster learning and manage existing knowledge to various degrees of sophistication, here we selectively suggest ways that health care managers can improve knowledge management first across the entire system, next in clinical settings, and finally in business units.

All domains within the system would benefit from interventions making them more proficient learning organizations. Thus, we begin our refinement dialogue by suggesting ways leaders in healthcare can improve learning.

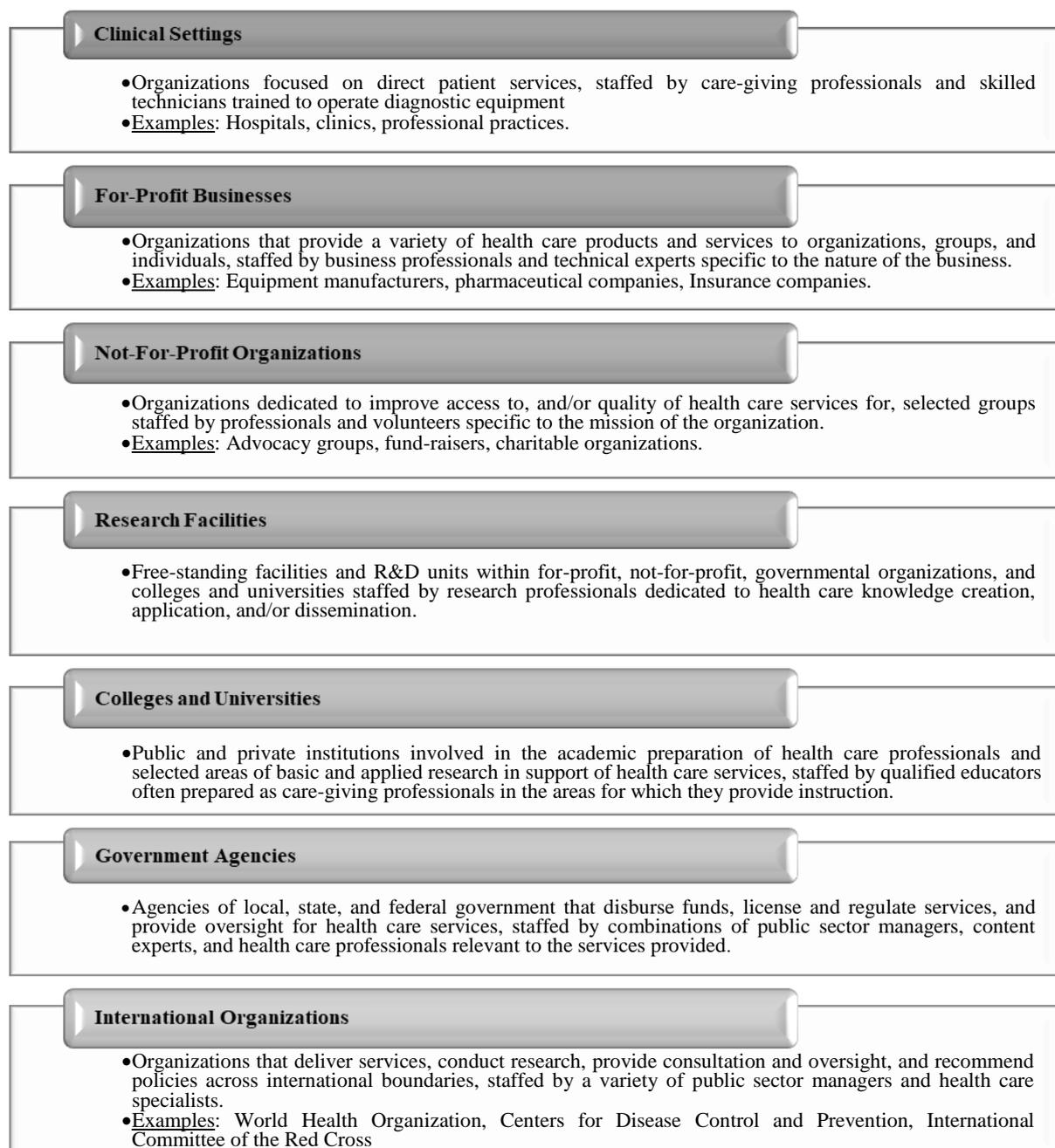


Figure 3: Major Interdependent Domains within the Healthcare System. Source: Smits *et al*, 2016; p. 302

*Building learning organizations*

While learning is a natural byproduct of experience, organizations that rely on knowledge and knowledge workers for successful performance, now pursue the development of what the scholarly literature refers to as the learning organization. Citing Daft and Marcic (1998), Rowden (2001) described such an organization as one “in which everyone is actively engaged in identifying and solving problems, enabling the organization to continuously experiment, change, and improve, thus increasing its capacity to grow, learn, and achieve its purpose” (p. 15). Raelin elaborated on action learning by saying the organization “builds on previous learning ... takes action, reflects and adjusts its course as it goes ” (p. 16). That said, we like Garvin et al.’s (2008) concise description of the learning organization as a place where members “excel at creating, acquiring, and transferring knowledge” (p. 110).

In a manner consistent with Rico et al.’s (2008) focus on teams capable of implicit coordination to cope with unexpected change, Edmondson (2008) stated: “Today’s central managerial challenge is to inspire and enable knowledge workers to solve, day in and day out, problems that cannot be anticipated” (p. 60). Describing learning as a “competitive imperative”, she characterizes today’s knowledge-driven work settings where leaders set direction and articulate the mission while the employees, working in teams, continuously improve work processes by discovering answers to problems via experimentation and knowledge exchanges in the form of feedback. In our terms, Edmondson is describing problem-solving and continuous quality improvement achieved by exchanging tacit knowledge.

Garvin et al. (2008) provided a useful, detailed description of the defining characteristics of the learning organization, including an on-line survey and normative data for organizations that want to assess their present status as a learning organization. The learning organization these scholars describe consists of three essential building blocks that in our judgment require policy, structural, staffing, and resource decisions by organizational leaders. The first building block is a “supportive learning environment” (p. 111) which includes the key ingredients for effective interpersonal relationships within the organization. The environmental components are consistent with the requirements for effective teamwork, whatever the nature of the tasks the teams perform. This first block includes “time for reflection” (p. 111), something individuals and teams in today’s high-stress healthcare settings may find difficult to incorporate unless it is built into the infrastructure described in the second building block. The second block consists of “concrete learning processes and practices” (p. 111). This block describes the infrastructure needed to experiment with new ways of conducting the organization’s ways of working, to collect and analyze the information necessary to objectively manage processes and practices, to improve functioning via education and training, and to share

information with key stakeholders. The infrastructure in this building block is essential to moving tacit knowledge into explicit knowledge for improved organizational functioning. The third building block is “leadership that reinforces learning” (p. 111). This block describes the key managerial activities required to work in challenging environments characterized by dynamic complexity. Managers must seek inputs from others, ask probing questions, listen attentively, encourage multiple points of view, and provide the resources that keep the organization problem-solving, innovating, moving forward strategically, and engaging in action learning as it does so (Garvin et al., 2008).

In summary, we recommend a system-wide development effort to make each healthcare domain a compilation of learning organizations. In all forms of behavior, context matters. For our purposes, new technologies and tacit knowledge are most likely to be utilized productively in healthcare settings that meet the characteristics of the learning organization.

## **DOMAIN-SPECIFIC REFINEMENTS**

We see striving to improve patient care as an ethical imperative that becomes more complex as new technology accelerates change. Flexible approaches to working have shown improvements in efficiency and knowledge sharing. With evidence that feedback from experience can be used for continuous improvements in practice (Brown & Duguid, 1991; Wilson, Goodman, & Cronin, 2007; Yamklin & Igel, 2012), no further explanation is required to support this dimension of importance.

The plethora of new technology impacting the delivery and effectiveness of healthcare described in the introduction to this paper suggests the need to continually review, upgrade, and disseminate professional standards of practice; a significant challenge for professional education programs, professional associations; funding sources; program administrators, and oversight and regulatory bodies. To keep up with advances in technology, sophisticated protocols need to be implemented to collect, analyze, and apply practical knowledge from clinical teams, knowledge that often begins as tacit knowledge.

Businesses mine tacit knowledge to develop the expertise that gives them competitive advantage on a sustained basis. For example, Andrews (2017) argues that competitive advantage in e-commerce companies is not likely to be located only in the company’s products, services, and technologies but also in the organization’s values, processes, and routines, and in how members of the organization engage in technologies. Tacit knowledge is often embedded in these areas. One need only observe the way e-commerce is curtailing commerce in healthcare to understand its current competitiveness. For example, Amazon has been exploring entrance into the prescription drug market, creating joint healthcare ventures to drive down cost of care through more direct purchasing and distribution

models (e.g. J.P. Morgan and Berkshire Hathaway), leveraging Alexa to assist with health and wellness at a consumer level, and selling medical supplies to U.S. hospitals. The processes, supply chain logistics, and underlying technologies that Amazon has deployed in other sectors is challenging the status quo and serving as a platform for disruption in the healthcare industry.

All, or most, health care units manage knowledge to some extent as they make improvements based upon experience. We are recommending formalization of the function by assigning knowledge management responsibilities to designated and empowered persons and structures; and by putting protocols in place to formally monitor feedback from experience to capture tacit knowledge whenever new technologies are introduced. Such formalization, complete with appropriate training for the unit's knowledge management leaders and staff, is consistent with Lawrence, et al.'s (2005) operational improvement of Crosson et al.'s (1999) 4I framework to help organizations learn. Lawrence and his associates (2005) argued convincingly that subtle improvements based upon experience do not become institutionalized practices unless the power and politics in play in the organization support such change. Health care managers can help make improvements happen by assigning and empowering a respected knowledge management leader to implement protocols to capture improvements as the unit learns from experience how to better use its new technology. There needs to be a convergence of technologies along with an active documentation and dissemination of tacit knowledge.

## CONCLUSION

Much research takes place in the healthcare system domains to produce the technological changes discussed in this paper. However, less scholarly effort is expended to study knowledge management and organizational change in many of the system's domains. We see such scholarly inquiry as both an opportunity for improving healthcare and for advancing our understanding of basic theory and research in disciplines concerned with organizational change per se and how knowledge management facilitates and accommodates successful change efforts. In summary, we would like to see more scholarly teamwork between organizational theorists and researchers and experts in the healthcare system.

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## UNIVERSITIES AND KNOWLEDGE TRIANGLE MODE: THE EIT HEALTH EXPERIENCE

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### ABSTRACT

The awareness of Knowledge Triangle as one of the drivers of innovation has been increasing in the past decades. Cooperation between higher education, business and research is at the core of the Knowledge Triangle universities are key players in Europe's research and innovation landscape.

This paper aims to analyze the Knowledge Triangle and the ways in which its principles are applied in university practice. This work analyzes the European Institute of Innovation and Technology (EIT) - specifically on its "Knowledge and Innovation Community" (KIC) focused on the health sector named "EIT Health" - to improve our understanding of the different ways to implement a model in practice. The concept of the Knowledge Triangle is not just a theoretical idea has attracted already considerable interest, however, there is scant evidence on the different forms Knowledge Triangle may actually display. The present study starts to remedy this gap and contributes the management field by providing evidence about the EIT Health experience.

The research methodology applied in this study is case study approach. The phenomenon under investigation is the relationship between Knowledge Triangle and forms of collaboration.

The preliminary empirical results show that policies and strategies focusing upon practice application of the Knowledge Triangle play a key role, also highlights the opportunities that integration of the they dimensions is essential to delivering the added value in terms of fostering innovation.

*Keywords: Knowledge Triangle, Knowledge Cooperation, Knowledge Co-creation, EIT, Innovation, Innovation Community, Networking, Academic and Entrepreneurial Environments, case study.*

### INTRODUCTION

The Knowledge Triangle (hereinafter KT), introduced by the Lisbon Agenda early in the 21st century, intertwines research institutions, education and innovation. It replaces the traditional one-way flow of information, from research to education and from educators to students, with systemic and continuous

interaction among the three corners of a triangle that encompasses research, education, and innovation (Council of the European Union, 2009). The KT integration has been in the core of the European Union's action line towards becoming the most competitive and dynamic knowledge-based economy. The KT can be defined as a set of actors and policy spheres that span the space for collaborative activities (Unger and Polt, 2017). There is not an agreed upon definition for the KT model, however all definitions academics, policy-makers and practitioners have offered so far are centered around the interaction among higher education, business and research - the three fundamental factors that contribute to the creation of the knowledge-based society and promote innovation (Markkula, 2011; Goossens and Sjoer, 2012; Gornitzka *et al.* 2007). Still, the KT concept outlines the importance of improving the impact of investments in the three activities by systemic and continuous interaction (Markkula, 2013). How these interactions unfold in the KT is dependent upon the structure of the national or regional innovation ecosystem (Lundvall, 1992; Edquist, 1997; Jackson, 2011).

The cooperation process is influenced by policy maker decisions, governance rules, internal and external resources, university links and networks. The KT dimensions may be institutionally incorporated in internal organization and mission. The cooperation may be supported by external structures and initiatives for knowledge dissemination such as joint programs that integrate research, development, training, and commercialization.

The elements in the KT model are intertwined and enjoy specific relations:

Research and Education: relations reflected in educational training programs, fundamental and applied research as the foundation for research-based teaching, process to improve skill-matching between graduates and companies, etc.

Education and Innovation: relations between actors is evaluated by considering the support for the development of an entrepreneurial culture in the education training programs and the formation of relevant expertise.

Research and Innovation: relations to support and intensify the transfer of knowledge process, public-private partnership models, research and development services contract from universities for the industrial sector, knowledge and technology transfer offices (TTO), university spin-offs and academic start-ups, etc.

The societal role of universities is essential in building a European Union where the impact of intellectual capital can be measured in terms of social and economic progress. The current model of the university, based on education and scientific research, is extended to include several challenges as well as shaping creativity and proactive attitudes open to entrepreneurship among students; cooperation with business, developing knowledge and technological and organizational solutions for the needs of the market; manage intellectual property created at universities; initiating partnership and network

relations with businesses. However, there are other concepts, partly overlapping and blurring, and partly complementary such as the “third mission” (OECD, 2015), the “entrepreneurial university” (Etzkowitz, 1983; Etzkowitz et al, 2008; Foss, Gibson, 2015) and the “triple helix” or even, the “quadruple helix” Etzkowitz, Leydesdorff, 2000; Leydesdorff, 2012; Ranga, Etzkowitz, 2013). Many European universities have recognized the importance of contributing to society through a model centered around science, research and extended education.

The awareness of KT as one of the drivers of innovation has been increasing in the past decades, as more and more universities have been successfully adopting this model. The different kinds of organizations forming the KT may follow a strategy of cooperation for joining some of the programs to benefit from participating in higher European innovation networks. Such a cooperation can be observed in the network and activities carried out by the EIT model.

The EIT model is inspired by open innovation principles (Chesbrough, 2006), and adopts an approach focused on the creation and management of collaborations between different subjects: public and private sector; for-profit and non-profit enterprises; institutions and society. The development of networks that include public-private partnerships or university-industry links is a key element within an open innovation system (Etzkowitz and Leydesdorff, 1997; Leydesdorff and Meyer, 2000; Larédo, 2003; Geuna and Muscio, 2009).

The EIT can be defined as a model aimed at establishing pan-European ecosystems of entrepreneurial innovation. It set up in 2008, is independent community body built to address the Europe's innovation gap and to become a key driver of EU sustainable growth and competitiveness through the stimulation of world-leading innovation. The EIT's concept of an integrated approach to the knowledge triangle is a way for EU scheme to promote innovation and entrepreneurship.

The analysis of literature shows that academics have paid due attention to the EIT foundation, when, in 2008, the first regulation was approved by the European Council and Parliament (Jones, 2008; Jofre *et al*, 2009; Gornitzka and Metz, 2014). Notwithstanding the intense debate which preceded that initial political agreement (Didier, 2010; Tindemans and Soete, 2007; Huisman and de Jong, 2014) there is no substantive research about the EIT. For instance, Rohrbeck and Pirelly (2010) built on a literature review and stakeholder analysis to propose a multi-level framework of key performance indicators for the EIT to steer its operations. Haegeman *et al*. (2012) discussed a foresight process to develop thematic priority areas for a new wave of Knowledge Innovation Communities (KICs). Heger and Boman (2015), in turn, explored the value of an KICs. This paper starts to address this gap by exploring how the European Institute of Innovation and Technology (EIT) integrates all parts and all actors of the KT in a unique way. Specifically, this study focuses on developing joint education and research program and projects within a knowledge triangle.

## AIM

The concept of the Knowledge Triangle has been applied in practice. However, there is scant evidence on the different forms Knowledge Triangle may actually display. Hence, the objective of this work is to fill the above literature gap and explore how this model works in practice.

This paper intends to achieve multiple aims:

First, it analyzes the KT and the ways in which its principles are applied in real-life.

Second, it investigates aspects such as what the KT means in university practice, so it will be examined strategies of EIT Health for implemented the KT model and the universities role.

The analysis of EIT Health improves our understanding of the different ways to implement KT in practice, by developing joint education and research program and projects.

## METHODOLOGY

The research methodology applied in this study is case study approach. The phenomenon under investigation is the relationship between KT and forms of collaboration. The research setting is the EIT Health network, which represents a suitable research context.

Case study is an umbrella term that encompasses different data gathering and analyzing techniques. For the purpose of the current study, primary and secondary data were collected. The access of research setting is characterized by the involvement and the participation into EIT Health activities. Such an involvement offers a unique opportunity to get acquainted with the setting under investigation. Participation observation allows to establish relationships of social interactions with different actors and to get knowledge from the inside of the phenomenon.

Specifically, the author acted as researcher-observer during the implementation of educational programs. This dual role enabled the collection of ethnographic field notes as well as semi-structured individual interviews (Cohen and Crabtree, 2008) with different stakeholders selected European universities where there are on-going EIT Health programs. Secondary data refer to government publications, annual reports, official website, newsletter, etc. Taken together, primary and secondary data enable the analysis of implementation patterns of the KT in the universities involved. By doing so, the study also disentangles the drivers and barriers in implementing a KT.

This study also provides a comparative case analysis of the relevant elements in the relationship between KT and forms of collaboration. The case also provides insights into drivers and barriers in implementing a KT model.

## RESEARCH FINDINGS

In this section we provide an overview of EIT Health. We then present preliminary research findings.

### *EIT Health: An overview*

The EIT was established in 2008 as a response to deep-seated concerns regarding the innovation performance of the EU. The model of the EIT in helping to achieve the objectives in H2020 is stated in its Strategic Innovation Agenda proposed by the Commission: “Through the KICs, the EIT helps to create environments where innovation is more likely to thrive and to generate breakthroughs in the way higher education, research and business collaborate. This approach helps addressing the increasingly complex societal challenges set out in Horizon 2020 in a holistic way, bringing together excellent people from different sectors, backgrounds and disciplines - who otherwise would not necessarily meet - to jointly find solutions to the challenge” (European Commission, 2011). Although the EU plays a leading global role in terms of top-level scientific output, it lags behind in the ability of converting this strength into wealth-generating innovations. It appears to not be less able to translate its research excellence into economic or social value, this phenomenon is widely referred to as “the European innovation paradox”. The EIT was designed to address some of the UE weakness: a fragmented innovation system, lack of integration of European higher education into the innovation chain and a low level of entrepreneurial activity, as depicted in Figure 1.

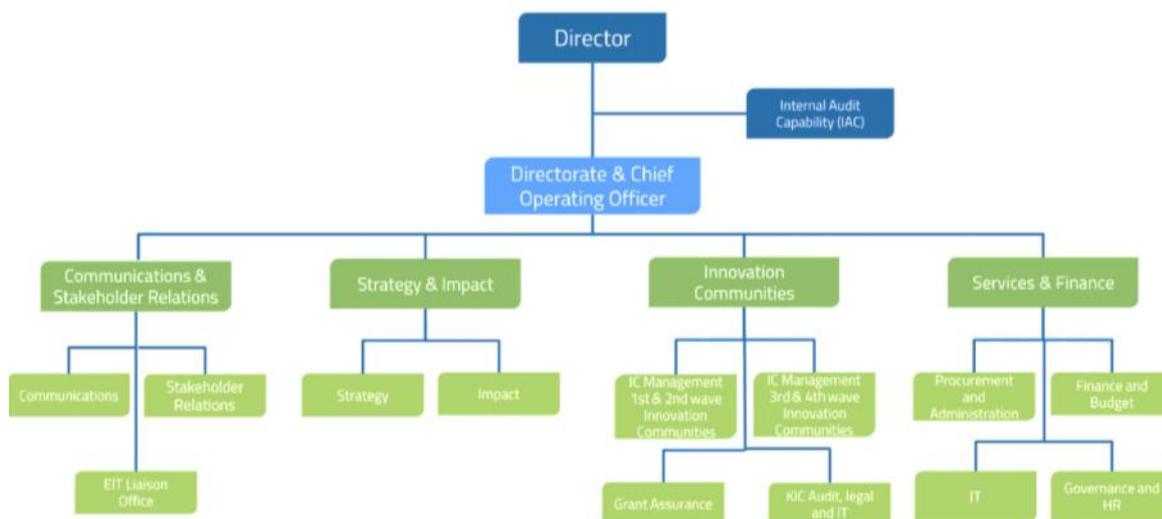


Figure 1. EIT Organization Chart.

Source: EIT (2020)

The EIT aims to bridge the gap between the research-focused universities and market-oriented companies. It is made up of various KICs who focus each on a different sector, or area, of innovation.

The idea behind the EIT KICs is that innovation flourishes best when the right people are brought together to share expertise. The KICs thematic are aligned with the Horizon 2020 societal challenges. At the time of data collection, there were eight KICs: Climate-KIC, Digital, Food, Health, InnoEnergy, Manufacturing, Raw Materials, and Urban Mobility. Each KIC encompasses innovation, entrepreneurship and education. The EIT Innovation Community's mission is to boost innovation and entrepreneurship through the integration of the KT, with two intertwined aims: Creating new jobs and spurring economic growth. KT integration is a coordinated process in which the EIT Community inspires, facilitates and empowers innovators with diverse skills and competences to creatively:

- deliver new products, services and business models;
- equip students with the skills to become entrepreneurs;
- create start-ups and accelerate the scaling up of ventures.

The actual implementation of the KT integration model (see figure 2) requires representatives of the full spectrum of partners to enter a process of strategic thinking, resulting in a set of clear goals and objectives, and pathways to achieve these. In the EIT model the KT concept is replaces the traditional one-way transfer of knowledge (i.e. from higher education institutions towards the industry) by a both ways flow between the corners of the KT, meaning that its sides are more important than its corners (Sjoer *et al.*,2015).

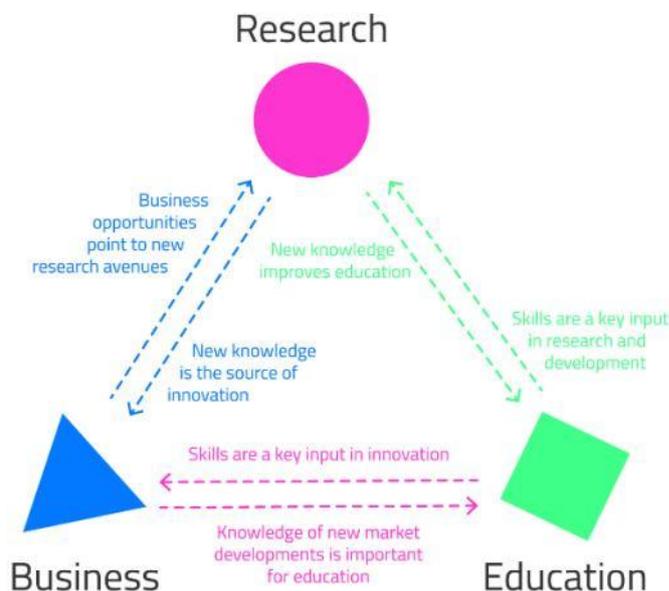


Figure 2. EIT Knowledge Triangle Model.

Source: EIT (2020)

The cooperation among, and the diversity of, partners is a core principle in designing the EIT model as no two companies, universities or research institutes are the same. The people within these companies, universities or research institutions are also unique (in terms of their skills, gender, culture, age, experience, etc.). EIT Health was established in 2015, as a KIC of the EIT. The goal of EIT Health is to contribute to increasing the competitiveness of European industry, improve the quality of life of Europe's citizens and the sustainability of healthcare systems. Partnership is an essential characteristic of an Innovation Community, and a requirement of the EIT's aim to bring together players from across the KT in a balanced and collaborative manner.

#### *Preliminary findings*

The network EIT brings together leading business, education and research organizations to form dynamic cross-border partnerships. The EIT sets the educational, entrepreneurial and innovation strategies for the KICs by outlining activities that contribute to the integration of the KT. These activities are established in an individual Framework Partnership Agreements and Specific Grant Agreements signed with the KICs. The former establishes long-term cooperation and sets out its terms and conditions as well as the general terms and conditions, rights and obligations applicable to the specific grants that may be awarded by the EIT for actions under the Framework Partnership Agreement, which is entered into for a period of seven years.

KICs are legal entities that integrate public and private research organizations, innovative industries, higher education institutions, investors and spin offs. Each KICs uses the central EIT funding as seed money to leverage existing investments and attract investors. Each one holistically builds innovation ecosystems through a portfolio of activities addressing the identified societal challenges and integrates Europe's leading players in education, research and business.

These system of funding have resulted into a new knowledge base of globally networked expertise, students, trainees and professional experts working within a KIC and educated through degree programs and courses on entrepreneurship that are awarded an EIT Health. Training programs have a multidisciplinary approach to engages learners also in the practical knowledge. The EIT Health community, including approximately 150 world-class partner organizations, works across borders to connect the three worlds of KT. Furthermore, the network created task forces for developing a project, preparing networking opportunities and organizing programs on health system in order to bring together students, researchers, educators and innovators, but also learners, business people and other societal stakeholders. The implementation of KT is assessed by studying the development of an entrepreneurial culture within the training programs.

The preliminary empirical results show that policies and strategies focusing upon practice application of the KT play a key role. Many policy instruments like EIT are vital for the actual implementation of

the KT within the universities. In the education programs the interdisciplinary approaches are mainstreamed, cooperation with research institutions and business are facilitated by EIT Health community. In the EIT model all the activities that are carried out involve all the dimensions of the KT, with universities playing an important role. The several activities promote involved partnership with research and business.

The EIT Health framework is used by universities as an external driver for institutional modernization. The policy experimentation space provided by EIT Health has acted as an internal transformation driver. The different activities promote is adapt to local cultural and regulatory contexts.

Results show that for the purposes a practical approach of KT are essential, for creating an innovation ecosystems: foster a shared vision, create a favorable atmosphere for idea generation, encourage a entrepreneurship, collaborative learning and knowledge co-creation, culture of change management and orchestration, motivating users as innovators, commitment on long-term change, accepting a radical innovation, piloting and rapid prototyping, and optimized full-use of digitalization as an all-permeating resource.

## **RESEARCH LIMITATIONS AND IMPLICATIONS**

This research has some inevitable limitations which could generate avenues for future research. The primary limitation of this study is related to the adoption of a qualitative methodology. The case study approach has been often criticized for its extreme subjectivity in interpreting collected data and evaluating the accuracy of the conclusions and lack of generalizability of the results. This study holds potential for future research avenues. A first research avenue is to investigate the transferability of this model to other geographical contexts. The experience refers to a European network within the European Union, which represents a unique institutional context. Whether it is suitable to different contexts is still to verify.

A second line of inquiry is related to the analysis of relationships among partners within KIK, and the mechanisms that help to build trust and avoid deception. To this end a processual and ethnographic analysis is the most suitable approach to understand how these relationships are created and evolve over time.

## **MANAGERIAL IMPLICATIONS**

The KT also offers managerial implications about how to foster an effective relationship among education, research and entrepreneurship. The integration of these three elements, no matter what starting point, is the key to delivering the added value in terms of fostering innovation. A cooperation is key in order to implement relevant governance models that support to develop innovation. The

impact of a good relationship reflects into an entrepreneurial culture, the formation of relevant skills and competences, the support of the transfer of knowledge process and public-private partnership models.

## CONCLUSION

Universities are key players in Europe's research and innovation landscape, partnership and networking are significant elements, which in turn require cooperation and constant dialogue to encourage innovation processes. It is essential to create a culture of networks and co-creation that crosses through the entire university in order to implement a Knowledge Triangle collaboration model. In a KT the cooperation brings with it an increase in the productivity of various entities, by including them in a specific network partnership.

The study offers insights into pros and cons of the EIT model and the opportunities that cooperation and network, through the KIC, can offer to the various actors involved in the innovation ecosystem. The study provides evidence for the approach of the KT is used in practice by entities set up under the EIT, in particular in Health communities.

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## THE RECOVERY FUND: THE EU'S NEW QUASI FISCAL CAPACITY AND THE SOCIAL NETWORK PERCEPTION

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### ABSTRACT

The objective of this paper is to provide a first overview of the financial and regulatory profiles of the *common debt instruments* contained in the *European Recovery Plan* and, at the same time, to offer an interpretation of the first results, in terms of media and social network reactions.

As a response to the strong economic impact of the pandemic, in May 2020, the European Commission has proposed a new European Emergency Temporary Recovery Instrument, "*Next Generation EU*".

The proposal is based on the extension of the *Budgetary Policy* foreseen in the Union's *Multiannual Financial Framework* (MFF) which, for the period 2021-2027, would be reinforced by resources from the *Recovery Fund* for a total amount of € 750 billion.

By integrating the potential of the European budget through the issuance of debt securities on the financial markets on behalf of the EU, the instrument will make it possible to support the measures deemed necessary and strategic for the recovery of the Member States.

The results of the empirical analysis show several implications with which this paper contributes to enrich the initial literature on the topic. The first is the significant gap that exists between the adoption of an institutional approach that for the first time gives the EU a "*quasi-fiscal capacity*" and the perception, given by the *Social Network Analysis*, far below the expectations that such an innovative institutional regulation would make consequential.

*Keywords: Recovery Fund; Next Generation EU; Pandemic; Emergency Temporary Recovery Instrument; Market Sentiment; Social Network analysis.*

### INTRODUCTION

The aim of this research is to provide a first overview of the financial and regulatory profiles of the *common debt instruments* contained in the *European Recovery Plan* and, at the same time, to offer an interpretation of the first results, in terms of media and social network reactions.

The new European Emergency Recovery Instrument, "*Next Generation EU*" - proposed by the Commission to the European Parliament and the European Council on May 27, 2020 and with some changes, approved by the EU Council in the Special Meeting (July, 2020) - is significant not only in

terms of its quantitative dimension (which will be discussed below), but also in terms of the prospects for the integration of European economic policies linked to the novelty of an approach based on common debt instruments. In fact, by integrating the potential of the European budget through the issuance of debt securities on the financial markets on behalf of the EU, the instrument will make it possible to support the measures deemed necessary and strategic for the recovery of the Member States.

The proposal is based on the extension of the *Budgetary Policy* foreseen in the Union's *Multiannual Financial Framework* (MFF) which, for the period 2021-2027, would be reinforced by resources from the *Recovery fund* for a total amount of € 750 billion.

This toolbox is part of the broader framework of European institutional measures developed in response to the economic impact of the symmetric shock caused by the health crisis; however, the different capacities of Member States to react to the shock have highlighted the need for a coordinated and redistributive approach in favour of countries in greatest difficulties. In this context the following are recalled:

- the *Pandemic Emergency Purchase Programme* (PEPP)<sup>1</sup> through which, as of March 2020, the European Central Bank has confirmed the re-interpretation of its mission in terms of stability and irreversibility of the euro;
- the introduction by the European Commission of margins of flexibility in the application of State aid rules through the modification of the *Temporary framework*<sup>2</sup>;
- the package of measures agreed by the European Council on April 23, 2020 for a total of € 540 billion, containing the establishment of a temporary support instrument that complements national measures to mitigate the risks of unemployment (“SURE”); the activation of a credit line under the *European Stability Mechanism* (ESM) dedicated to expenditure on pandemic crisis management and health systems strengthening (“*ESM Pandemic Crisis Support*”); the creation of a new “*Pan-European Guarantee Fund*” with a budget of € 25 billion to which Member States contribute, in the form of a guarantee, in proportion to their shares in the European Investment Bank (EIB).

The perspective that emerges from the study is that of a wide divergence between the innovative financial instruments developed in response to the economic impact produced by the health crisis, representing an extraordinary quasi fiscal capacity, and the very critical perception widespread at the level of social networks, as shown by the empirical analysis.

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<sup>1</sup> Decision (EU) 2020/440 of the European Central Bank of 24 March 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17).

<sup>2</sup> The Communication from the Commission of 8 May 2020 “Amendment to the Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak” (C(2020) 3156 final) sets out the criteria under which Member States may recapitalise or provide subordinated loans to non-financial firms in difficulty, safeguarding the level playing field in the European Union.

The phenomenon of this divergence - albeit outlined within the limits of this analysis - highlights the potential *social network deficit of consensus* profiles of European public policies with the consequent potential problems.

## NEXT GENERATION EU: EMERGING ISSUES

The emergency toolkit contained in the *Next Generation EU* programme provides for the use of the EU budget supplemented on a temporary basis by recovery resources collected from the financial markets. These resources will be allocated to the common strategic priorities already partly outlined in the *Multiannual Financial Framework* prior to the effects of the crisis. In particular, the focus on sustainable development and digital transformation objectives is confirmed, hence the provision of strategic investments in technology and network infrastructure, resilience of the health system and innovation.

On the financial side, the instrument - of an urgent and temporary nature - requires the modification of the own resources ceiling of the European budget so that the Commission can borrow up to €750 billion on behalf of the Union over the period 2021-2024. In line with budgetary discipline, the liabilities linked to the financing of the *Recovery Facility* should be offset by a temporary increase in the own resources ceilings for commitments and payments of 0.6 % of EU Gross National Income (GNI). The increase in expenditure, anchoring the funds to the own resources system, requires the approval of all Member States. Moreover, it is precisely the emergency context in which the instrument is designed that makes it necessary to use financing mechanisms that go beyond the increase in national debt.

The bonds resulting from this specific debt issuance will therefore be repaid through future EU budgets, although the Commission's proposal foresees the possibility of introducing, at a later stage, "additional new own resources" (here the grounds to label the "policy" as "quasi fiscal") to help finance the repayment and interest of the funds raised on the market. These taxes (among others, the *carbon tax*, the *plastic tax* and the *digital tax*) are foreseen directly from the common budget and, according to the proposal, would reduce Member States' national contributions to the *Multiannual financial framework 2021-2027*.

The strategic choice to include more own resources in this emergency context appears to be relevant in terms of the opportunities and prospects that can be achieved in terms of setting up Community investment and supporting Member States, leaving aside in part the issue of national contributions to the Community budget. Moreover, this innovative configuration of *Recovery's* financial instruments could pave the way for further issues of common debt securities, in the absence of mutual guarantees between Member States.

It should also be noted that since the repayment of securities is borne by the European budget, i.e. ultimately by the Member States, any balance of net benefits must also be assessed taking into account

the obligations to repay debts incurred through the European budget. The latter are proportionate to GNI and therefore the net benefits will depend on the margin of divergence between the funds allocated - based on the preference for the countries most affected by the health crisis - and the corresponding GNI shares. Therefore, the distinction between loans and transfers to Member States, discussed below, seems less relevant than perceived in the public debate.

The loan taken out on the financial markets by the European Commission - which, if the contents of the proposal were confirmed, would become the largest supranational issuer in Europe - has certain specific characteristics:

- the issue of the securities will take place on terms reflecting the high credit rating of the Union;
- maturity diversification in order to allow markets to absorb bonds at a lower average cost;
- redemption of the securities from 2027 and by 2058;
- presence of the pro-quota guarantee of the Member States.

Among the considerations that the profiles just recalled solicit, the first one is that they give rise to a scenario whose programmed duration, although temporally defined, **does not seem to be entirely referable to a mere emergency dimension**. The instrumentation is in fact characterized by structural profiles such as to assume, presumably, that the presence of the guarantee and the increase in own resources will represent new aspects of the European budget projected in the long term (up to thirty years).

## THE ALLOCATION OF RESOURCES COLLECTED ON FINANCIAL MARKETS

The resources raised on the financial markets would be allocated under the EU's *Multiannual Financial Framework*, in the form of grants, loans and budget guarantees, giving priority to the countries most affected by the crisis.

More precisely, the channelling of financial resources will take place in three main directions:

- support to Member States;
- support for private and strategic investment;
- support for the establishment of new research and innovation programmes, especially in health and crisis management.

With regard to the first point, the quantitative dimension of the share of funds allocated to support **public investment and reforms** in the Member States is significant. More than 70% of the resources will be dedicated to the main programme of the *Next Generation Eu*, i.e. the *Recovery and Resilience Facility*, with a budget of € 560 billion, of which € 310 billion will be allocated to finance the grant component, with no reimbursement obligation, and the remaining part of the funds mobilised through the Facility (€ 250 billion) to finance loans to Member States. At the strategic level, the *Recovery and Resilience Facility*

aims to support public investment to prevent the effects of the health crisis from undermining convergence between countries, leading to further negative economic, social and political externalities.

The *REACT-EU* programme, which will provide support to the Member States most affected by the pandemic in the form of grants for employment incentives and cross-cutting support to economic sectors most affected by the crisis, is also part of **cohesion policies**.

The *Solvency Support Instrument* and the *Strategic Investment Facility* are a temporary cover mechanism with a budgetary guarantee, aimed at mobilising private capital to support healthy companies affected by the crisis by providing partial guarantees against losses. The EU budget, with a financial envelope of €31 billion from the *Next Generation EU* framework, will provide a guarantee of around €75 billion to the EIB, which is entrusted with the operational implementation of the Facility in order to reduce the risk for private investors investing in eligible companies.

In a similar direction, as a complementary measure, the strengthening of the existing European programme (*InvestEU*) providing **support to businesses in the recovery phase**, with a strong focus on general economic priorities such as the European *Green Deal* and digitisation. Through the additional financial contribution of *Next Generation EU* of €15.3 billion for existing policy areas and €15 billion for the *Strategic Investment Facility*, the total *InvestEU* budget will be €30.3 billion. This will increase the capacity of the EIB and national promotion banks to take risks in support of economic recovery.

Finally, the investment objectives in health security and the EU Civil Protection Mechanism will be pursued through the resources allocated to the *EU4health* and *RescEU* programmes.

Overall, these *instruments* and *facilities* represent a significant opportunity for a common response, proportionate to the effects of the crisis, but whose financial resources come from a common debt contracted by the European Union, which would be the responsibility of all member countries.

From an operational point of view, therefore, the mechanism of access to resources will follow the procedures of the European budget: the Member States will have to agree on the purposes for which the funds will be allocated and present a financial plan highlighting the strategy for the use of the available resources. This opportunity implies at the same time acceptance of the European surveillance of the national economic policies of the beneficiary countries.

In the light of the brief analysis conducted here, it emerges that the European financial *Recovery fund* represents an important step in the process of economic and fiscal policy integration. It is interesting to note that, in exceptional circumstances, the spending capacity of the EU budget can be increased by using debt to intervene when and where necessary. The Recovery Mechanism thus provides a first strong European fiscal response to the Covid-19 crisis and provides the necessary conditions to boost investor confidence that the euro can be reliable during major shocks.

The analysis that follows offers an initial assessment of the possible orientation of investors on this issue, focusing on the results of the dissemination of news through *social networks* - in this case, Twitter - regarding the introduction of the *Recovery instruments*. It emerges that the impact on investor confidence is complex, presumably also due to the general economic vulnerability.

## ANALYSIS METHODOLOGY

### *The Social Network Analysis*

This paper aims, in the following context, to verify some aspects related to the dissemination of news through *social networks* - in this case *Twitter* - concerning the introduction of the *Recovery Fund*.

Based on a mechanism similar to *word of mouth*, Twitter allows the active participation of users, through the possibility to express and disseminate comments. For this reason, over time it has become an interesting field of study on how financial news is circulated. In this perspective, we want to investigate the link between the nature and influence of different sources of information, highlighting the actors that have a central role in the dissemination of news on the theme of the *Recovery Fund*<sup>1</sup>.

The methodology adopted makes it possible to distinguish the types of users who have published on topics identified on the basis of *hashtags* and to detect the set of relationships between different users and the propagation of a message within the social network.

The analysis of the nature of Twitter users allows to distinguish between mass media, blogs and individuals.

The centrality of one actor with respect to another has been measured by *betweenness*. Specifically, it was calculated by averaging the number of times that a node is in a "path" between two other nodes, thus providing a measure of how much an actor has control over the information flowing between the others.

The actor  $i$  *betweenness* is given by the sum of all the partial *betweennesses* calculated for each pair of  $g_{jk}$  vertices:

where  $g_{jk}$  represents the number of geodetic connections, i.e. shorter, between vertices  $j$  and  $k$ , while  $g_{jk}(n_i)$  is the number of times the  $i$ -th actor is involved.

The idea behind this measure is that the impact that a generic actor is able to make is linked to the number of times he is in the shortest path between two other actors. In other words, this measure is an

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<sup>1</sup> The Social Network Analysis (SNA) methodology is used to study the relationship between nature and influence of information sources (Mitchell, 1969; Wasserman and Faust, 1994; Degenne and Forsé, 2007; Signori and Confente, 2014; Lazzeretti and Capone, 2016).

To analyze the semantic aspects of the tweets on the investigated topics in terms of positive or negative value of the content, the methodology of *Text Analysis* (Stone *et al.*, 1966) is used.

expression of a user's ability to be an informative relational bridge.

The significance of the differences in the categories was then tested through the ANOVA statistical test.

### *The Text Analysis*

The second part of the analysis concerns the evaluation of the semantic aspects of the *tweets* produced and selected according to both *hashtags* according to the *Text Analysis* methodology.

This methodology (Stone *et al.*, 1966) is used through the use of Oxford University's Wordsmith 4 software (Scott, 1999), adopted with the aim of measuring the value of the content (positive or negative) and expository tone (strong or weak) used in the release of users' messages on Twitter.

From an operational point of view, Wordsmith 4 software counts the number of words of each news item that falls into the categories "positive/negative" and "strong/weak" of the vocabularies used.

This study used Loughran and McDonald's (2011) vocabulary, which considers terms that generally have only financial implications. In detail, the category of negative words counts 2,337 records, while the category of positive words includes 353. Similarly, 27 are the words included in the category that identifies a weak expository tone, while the category of words that identify a strong expository tone is composed of 19 records<sup>1</sup>.

## THE SAMPLE

As said, the data are represented by all the tweets (in Italian and English) converging towards the hashtag #recoveryfund, from May 27, 2020 until June 15, 2020.

The period has been selected taking as its starting point the date when the European Commission defined the details of the *Recovery Fund*, structuring the *Next Generation EU* programme.

According to the hashtag #recoveryfund there are 2970 registered users who have produced 4948 tweets and 4275 retweets.

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<sup>1</sup> In order to establish the value of a content, the most adopted formulation for studies in this field (Barber and Odean, 2008; Carretta *et al.*, 2011) is the following:

$$(P - N)/W$$

where P and N are respectively the number of positive and negative words contained in the analysed text, according to the classification given by the adopted vocabulary; W represents the total number of words contained in the analysed document. The value obtained in this way is between -1 (completely negative tweet) and 1 (completely positive tweet).

To establish the tone adopted in the release of the news in a manner similar to the content, the wording adopted is as follows:

$$(F - D)/W$$

where F and D are respectively the number of strong and weak words contained in the text, according to the classification given by the vocabulary used; W represents the total number of words contained in the document examined. Again, the value obtained in this way is between -1 (completely weak news) and 1 (completely strong news).

The high coverage of the *Recovery Fund* confirms some of the requirements of the news of Galtung and Ruge (1965): the Covid-19 health emergency and its economic and financial implications affect the entire national and global population, which shows a "hunger for news" linked to both the current situation and future developments, making the *Recovery Fund* subject suitable to become news.

A central role in tweet distribution networks is played by general users, including journalists through personal accounts and political figures, followed by traditional media through official social network profiles and blogs.

Considering retweets is important because it is precisely on the basis of these that it is possible to define the networks of interactions between all users.

Tweets and retweets published on the Social Network reach a peak on May 27, 2020 when the measure is announced by the European Commission (Figure 1).

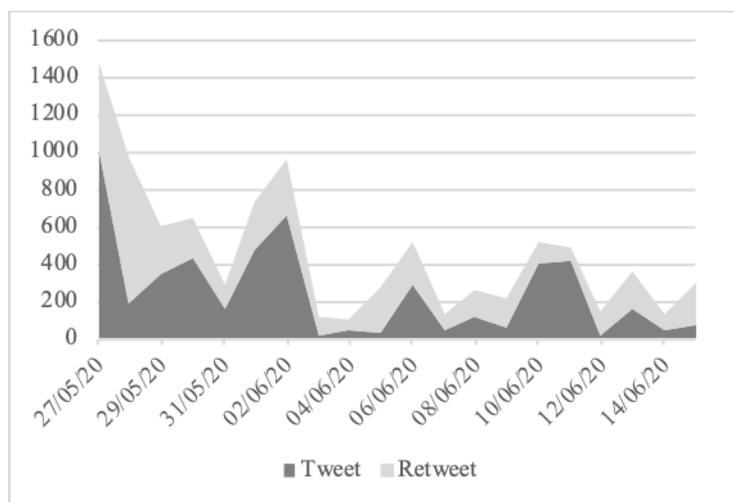


Figure 1. Tweet and retweet distribution with hashtag #recoveryfund published from 27 May 2020 to 15 June 2020. Source: authors' elaboration

In the following days the attention on the Social Network remains always high on the theme of the *Recovery fund*, even if with an appreciable difference in terms of number of tweets produced.

In all cases the retweets are even more numerous than the tweets published on the same day.

This behavior and the link of the theme with the Covid-19 pandemic make the tweets published with the hashtag #recoveryfund reflect most of the fundamentals of the "newsworthiness" of the events according to Galtung and Ruge. The health emergency of the Coronavirus and the resulting economic and financial repercussions affect the entire national and global population, which shows a "hunger for news" both for the current situation and for future developments.

In fact, if we look at the hashtag *clouds* (figure 2) that most frequently recur in tweets and retweets containing the hashtag #recoveryfund, we see that the most recurrent ones concern:

- The Covid-19 hashtag or coronavirus;
- political parties;
- names of public figures, Italian or foreign politicians and journalists;
- TV or newspaper headlines;
- hashtag as #nextgenerationeu or #ESM;
- #European Commission, #European Union, or names of member states or former members of the European Union;
- #taskforce.



Figure 2. Network of recurring hashtags in tweets on #recoveryfund.

Source: authors' processing of Twitter data.

## THE RESULTS OF THE ANALYSIS

### *The results of Social Network Analysis*

Based on the analysis carried out, Figure 3 shows the interaction network between users trained on the retweets produced on tweets containing the hashtag #recoveryfund examined.

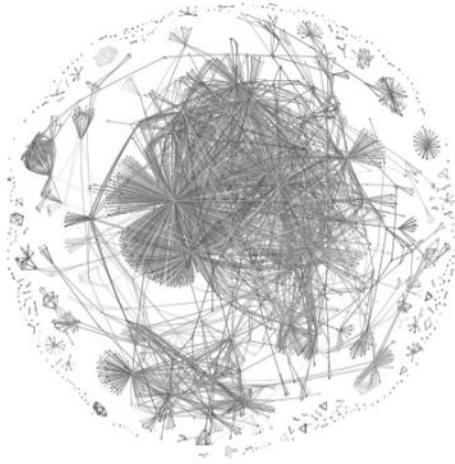


Figure 3. *Tag cloud generated by retweets containing the hashtag #recoveryfund. Source: authors' processing of Twitter data*

The observation of the cloud generated by the selection of retweets based on the hashtag used for the research confirms first of all that *Recovery Fund* is a hot topic for the debate on social networks. The concentration of the *tag cloud* in fact reveals a strong interaction between users that shows how the debate is on and extremely topical.

In order to identify the actors responsible for the dissemination of information and news on Twitter, the *betweenness* analysis (Table 1) was carried out, whose statistical significance of the differences between the groups was tested using the ANOVA test (Table 2).

The analysis of *betweenness* reveals that the actors taking a central position in the network are generic users, with politicians and journalists who tweet about the topic with their personal accounts, followed by traditional generalist information sites and specialized information sites, followed by financial blogs.

|                 | #recoveryfund |                      |        |
|-----------------|---------------|----------------------|--------|
|                 | N             | Betweenness<br>Media | Dev St |
| Mass - Media    | 213           | 0.5527               | 0.4661 |
| Financial Blogs | 393           | 0.2021               | 0.2820 |
| Generic Users   | 2364          | 0.6673               | 0.4830 |

Table 1. *Betweenness analysis on retweets containing the hashtag #recoveryfund*

|               | #recoveryfund  |    |             |        |      |
|---------------|----------------|----|-------------|--------|------|
|               | Sum of Squares | df | Mean Square | F      | Sign |
| Between Group | 535.61         | 2  | 273.784     | 13.630 | .000 |
| Within Group  | 1019.63        | 51 | 20.0141     |        |      |
| Total         | 1555.24        | 53 |             |        |      |

Table 2. *ANOVA test - Significance values in relation to retweets containing the hashtag #recoveryfund*

### Results of the Text Analysis

The semantic interpretation of tweets shows how *Recovery Fund* is mentioned on the Twitter platform. If we consider the tweets by type of users responsible for their publication (Table 3), we can see how the mass-media express themselves on the *Fund* with a substantial neutrality: the values of the content worthiness and of the display tone used are respectively 0.03 and 0.06, outlining a style of messages that seems to be popular. Financial blogs show a very weak positivity both in terms of published content (0.19) and in terms of display strength used (0.15). Individual users, on the other hand, appear to be the most critical, expressing themselves on Twitter very vehemently (0.93 is the value of the display tone) and also critical of *Recovery's* instrumentation (-0.97 is the value of the content).

| #recoveryfund   |                    |              |
|-----------------|--------------------|--------------|
| Type of Users   | Valence of Content | Display Tone |
| Mass – Media    | 0.03               | 0.06         |
| Financial Blogs | 0.19               | 0.15         |
| Generic Users   | -0.97              | 0.93         |
| Total           | -0.89              | 0.81         |

Table 3. *Tweet sentiment containing the hashtag #recoveryfund by user type. Source: authors' processing of Twitter data.*

## IMPLICATIONS

As we have seen, the process launched for the approval of the *Recovery Fund* is an issue to which the media, with particular regard to social networks such as Twitter, have reserved considerable space by virtue of the impact, not only strictly economic-financial, but also political and social, which may result. The issue obviously presents aspects of complexity that concern, in particular, the financial convenience profiles of each country and its novelty with respect to the European sovereign bond market, as a result of the launch of a *common debt issuance* policy.

In fact, in fiscal and financial terms, the issuance of bonds with different maturities between 2027 and 2058 - where confirmed - will define a real yield curve for the euro area.

However, it must be considered that, in order to effectively change the perception of the euro by **institutional investors** of a *genuine euro area yield curve* - through the *Recovery Fund* - (Panetta, 2020), the necessary prerequisite is that of **predictability**: in other words, to transmit to the market the assumption that this type of action is always predictable at times of great economic and social importance.

On the other hand, the empirical analysis of *sentiment* conducted above looking at **generic users** and **financial blogs** sometimes shows negative content and even harsh tones for the tweets of the former and a very slight positivity on the part of the latter, while a substantial neutrality of both the value of the content and the emphasis is assumed by the media.

The media seem to maintain an attitude of disseminating information in relation to the *Recovery Fund* mechanism, limiting themselves to playing the role of information brokers.

The results of the empirical analysis - albeit within the inevitable limits given here - show several implications with which this paper contributes to enrich the initial literature on the topic. The first is the significant gap that exists between the adoption of an institutional approach that for the first time gives the EU a "*quasi-fiscal capacity*" and the perception, given by the *Social Network Analysis*, far below the expectations that such an innovative institutional regulation would make consequential.

Consequently, from the point of view of *Social Network Analysis*, it is essential to understand by whom and in what way the news about the *Recovery Fund* is published on *social networks*, as the central actors in the process of spreading and propagating the news have an impact on the knowledge of other users about the mechanism itself: bad information by the central actors of social networks generates negative externalities and information asymmetries with negative repercussions on financial markets.

## FUTURE RESEARCH PERSPECTIVES

The future prospects of this study will concern the monitoring of the Network, linked to the issue of the *Recovery Fund*, over a longer time horizon and the investigation into the existence of a relationship among the financial instruments adopted, the circulation of news and the degree of attention/awareness of individuals.

The perspective to which the further development of this line of research, which combines the regulatory-financial approach with that of behavioural finance, may tend to lead is that of outlining a path that analyzes the causes and information distortions that give rise to the gap resulting from the empirical analysis. Moreover, prospectively the extension of the analysis could devise paths of reconciliation between the regulatory logic and the sentiment resulting from Social Networks.

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# THE IMPACT OF THE CORONAVIRUS ON THE TOURISM INDUSTRY IN THE EPICENTERS – BRIEF CHRONOLOGY

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## ABSTRACT

The world is facing the new epidemic of the Coronavirus. The latter has had a profound impact on the tourism industry around the globe, with more than 80.000 infections and 3000 deaths by the time of the investigation. The spread of the virus has started from a unique country in the Asian continent “China” to 59 countries in the different continents in less than a month, and the negative expansion is continuing.

This paper presents a brief of the coronavirus chronology during the prodromal and the crisis phases, along with the impacts on the world tourism industry with a stress on the epicenters, declared by the time of study, namely “China”, “South Korea”, and “Italy”.

Several scenarios of cancellations are presented, from both, the side of tourists as well as the one of the suppliers of the tourism industry. The main reasons behind are the lack of knowledge in terms of potential development of the crisis, lack of visions, the unawareness and the ignorance in managing such situations, as well as the noted responses of Governments to specific circumstances while infections appear in tourism premises.

This paper gives a projection of the future directions to be considered, related to the impacts of the Covid-19, as well as the crisis management evaluation compared to previously experience similar epidemics.

*Keywords: Covid-19, crisis management, crisis denial, tourism flows, cancelations*

## 1. INTRODUCTION

The Covid-19 crisis began in December 2019, in the province of Hubei in China, and led to the containment of affected cities. This negative event was mainly based on the growing numbers of infected patients in China, leading to a pandemic spread (WHO 2019) (Figure 3). More than fourth of the world’s countries have been infected in a very short period of time. The situation has reached the mentioned level, principally because of the denial response strategy (Coombs, 2007) adopted by the first epicenter.

This paper is a first step of more profound work, it presents a brief chronology of the situation, the responses, and the consequences of the Covid-19, on the tourism and the hospitality industry. The main sources of data collected are observation and ethnography, in a day to day basis during the primary month of the spread of the epidemic disease from the 28<sup>th</sup> of January 2020 to the 29<sup>th</sup> of February of the same year.

The paper discusses the impact of the 2019 Coronavirus in terms of international tourists' flows and repatriation, potential job losses, sudden quarantines applied to hospitality premises, and cancellation of delivery of tourism services and products. Another issue to be discussed is the responses of the countries considered as the main epicentres of the epidemic crisis, during both the prodromal and the emergency phases.

In addition, this actual paper aims principally to study the scales of the crisis in China, South Korea and in the world as well as the link of the latter to the impacts and responses. In the final part, there will be a presentation of the potential future evolution of the work, as it is planned by the authors, during the emergency and the post crisis phases.

## **2. CRISIS RESPONSES BASED ON THE PREVIOUS EXPERIENCES**

Many previous studies are trying to approach the different ways by means of which crises can be managed. In some cases, formal frameworks are proposed with specific functional structures and with constructed information flows (Bénaben, 2016). A few of the proposed crisis management frameworks are quite general (Faulkner, 2001) and other are focused towards knowledge management systems (Jia, Shi, Jia, & Li, 2012).

More specifically, for health-related crises there are numerous researchers contributing the last few decades. Epidemic diseases like Ebola (Novelli, Burgess, Jones, & Ritchie, 2018), Avian Flu (Kuo, Chen, Tseng, Ju, & Huang, 2008), SARS (Kuo, Chen, Tseng, Ju, & Huang, 2008), Swine Flu and MERS were quite critical for humanity in various ways. Several data sets from these periods were analyzed in a way to create meaningful outcomes.

Specific case studies from affected destinations were examined and studied providing interesting conclusions. Destinations like Hong Kong (Chien & Law, 2003), Singapore (Henderson & Ng, 2004) and Korea (Kim, Chun, & Lee, 2005) during SARS, but also Brunei during Swine Flu (Haque, 2017) were studied and important evidences have resulted to specific conclusions about the impacts on tourism and the overall economy.

Additionally, academicians looking towards connections between such research studies and strategic decision making, have presented important integrative frameworks (Bundy, Pfarrer, Short, and Coombs, 2017).

Such management frameworks, especially for the hospitality and tourism industry, were proposed directly from expert responses during opinion mining (Paraskevas, Altinay, McLean, & Cooper, 2013). Finally, broader thematic approaches, including previous research and identified gaps, examine the various research methodologies and suggest future research approaches to have significant progress in this field (Ritchie & Jiang, 2019).

Health crisis is not the only form of crisis threatening global tourism. Examples of other forms of crises like major terrorism attacks as the case of 9/11 have been studied in a similar way to contribute to the crisis management theories (Evans & Elphick, 2005). Although impacts are in many cases similar, the latter crises have different impacts on tourists' behavior and flows in the world.

### 3. METHODOLOGY

The data is gathered through the main accurate sources of information used worldwide by the time of the crisis, and from the beginning of the emergency stage, more precisely, the main news media as well as local and international official data sources, specifically created for the Covid-19, as follow:

- Tv channels France 24, Euronews and BBC news: to collect the data about the different decisions, and the crisis management's resolutions of the infected countries;

- Coronavirus maps: are updated at least twice per day during all the period of the study.

- o South Korea – <http://coronamap.site>; and

- o Worldwide

- o <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>.

- Ethnographic observations: simplified by the geographical locations of both authors by the time of the study - one of the authors is in South Korea by, and the second in Europe;

- Facts have been constantly collected from connections in the epicentres, mainly China, as well as in the hospitality premises affected by the crisis, such as the Diamond Princess.

Besides, this paper is resumed to a brief chronology of facts and figures, negative impacts on the tourism and hospitality industry, as well as countries' main strategies adopted by the prodromal and the emergency phases. In fact, it represents a first stage of a wider ongoing research, going through the coming periods in a similar fashion, but in more developed ways of analysis.

**The selection of the destinations, as stated at an earlier part, is based on the following criteria:**

- Declared epicentres: The first infected country (China, accounting nearly 80.000 infected patients by the 01-March 2020), the second and the third most infected countries in Asia and Europe (South Korea – with 4220 cases and Italy – with more than 1700 cases);

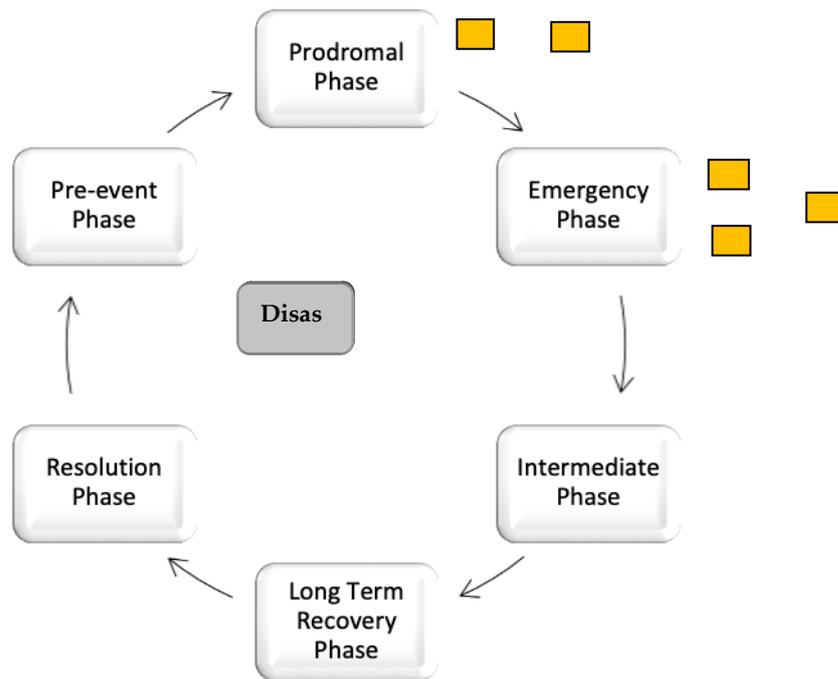
- The very rapid growth rate of the illness – what have been considered as exponential;

- The nature and the phase of the crisis: very short prodromal phase and unpredictable emergency or disaster phase (Faulkner, 2011);

#### 4. THE COVID-2019 AND THE TOURISM INDUSTRY

Faulkner’s (2001) model is used to point at scenarios and place accordingly to their phases and their duration over time.

Figure 2. Disaster Management Framework – Scenarios of Covid-19



Source: Faulkner (2001)

Table 1. Covid-19 and territories of epicenters’ responses

| Countries   | Period  |    | Scenarios’ explanation – Strategies and responses  |
|-------------|---|----|--|
| China       | From the end of December 2019 to the mid-January 2020 | S1 | - Prodromal phase in China aligned with the denial strategy applied to the crisis;<br>- Lack of transparency during this period: led to a bigger spread of the virus;<br>- No impact on the tourism industry at this stage;  |
|             | 28- Jan 2020 to 01 – March 2020                       | S2 | - Complete transparency and containment of the cities infected;<br>- Many restrictions have been applied blocking the flows of tourists from and to china, with inbound severely impacted;<br>- Flights cancellations have exceeded 200.000;   |
| South Korea | 28-Jan to 19-Feb                                      | S3 | - In the prodromal phase South Korea applied containment, due to the lessons learned from the spread in China;<br>- Closure was targeting China mainly but no other countries;<br>- No restrictions on gatherings, events and travelling until the 12th of February, which as stamped by the highest number of Infections in China, and the start of the raise in South Korea; |
|             | 20-Feb to 01-March 2020                               | S2 | - Critical situation with many restrictions to South Korea from different countries;   |

|       |                     |    |  |
|-------|---------------------|----|--|
|       |                     |    | <ul style="list-style-type: none"> <li>- Wearing the mask became compulsory;</li> <li>- Gathering, and events were canceled;</li> <li>- Closure of universities until 15th of March (1st delay), and 23rd of March (2nd delay);</li> <li>- Tourists fear South Korea as the country became the 2nd epicenter after China;</li> <li>- The vision is unpredictable for the tourism and hospitality industry, with a forecast of a big loss in terms of arrivals and departures.</li> </ul> |
| Italy | 24-Feb to 01- March | S5 | <ul style="list-style-type: none"> <li>- Alert in Italy, and the growth of the epidemic in a unexpected way;</li> <li>- Quarantine of cities, and cancelation of several transportation means, making the country less accessible;</li> <li>- Closure of schools and suspension of gathering and events;</li> </ul>  |

Source: Authors (2020)

The biggest problem resides on the fact that during the prodromal phase and the beginning of the emergency phase, the selected countries initiated their crisis management with a denial strategy. The latter has led to a more spread of the epidemic. The strategic responses of containment, quarantines and restrictions to and from certain territories, were in most cases, decided and announced after the epidemic was spread. Most of the secondary infected countries are, by the time of the study, following the same steps as the first epicenters.

Although differences in terms of starting dates, there are several similarities in the speed of the virus spreading in China and in South Korea. During the two first weeks of the emergency phase in China the growth rate (GR)<sup>1</sup> accounted for 20.41% on average daily and the peak of the growth was registered on the 12<sup>th</sup> of February 2020, with more than 15150 new infections, equivalent to 34.97% of DG. However,<sup>1</sup> although numbers are growing, the growth rate slow down and starting from the 13<sup>th</sup> of February 2020, the average DG did not exceed 4.15% and even dropped to less than 1%, in the last few days of the month of February 2020.

In South Korea, the growth rate in the emergency phase has been quite high with peaks, in daily basis between 32 and 112 %. The highest level of the growth was registered in the 21<sup>st</sup> of February 2020.

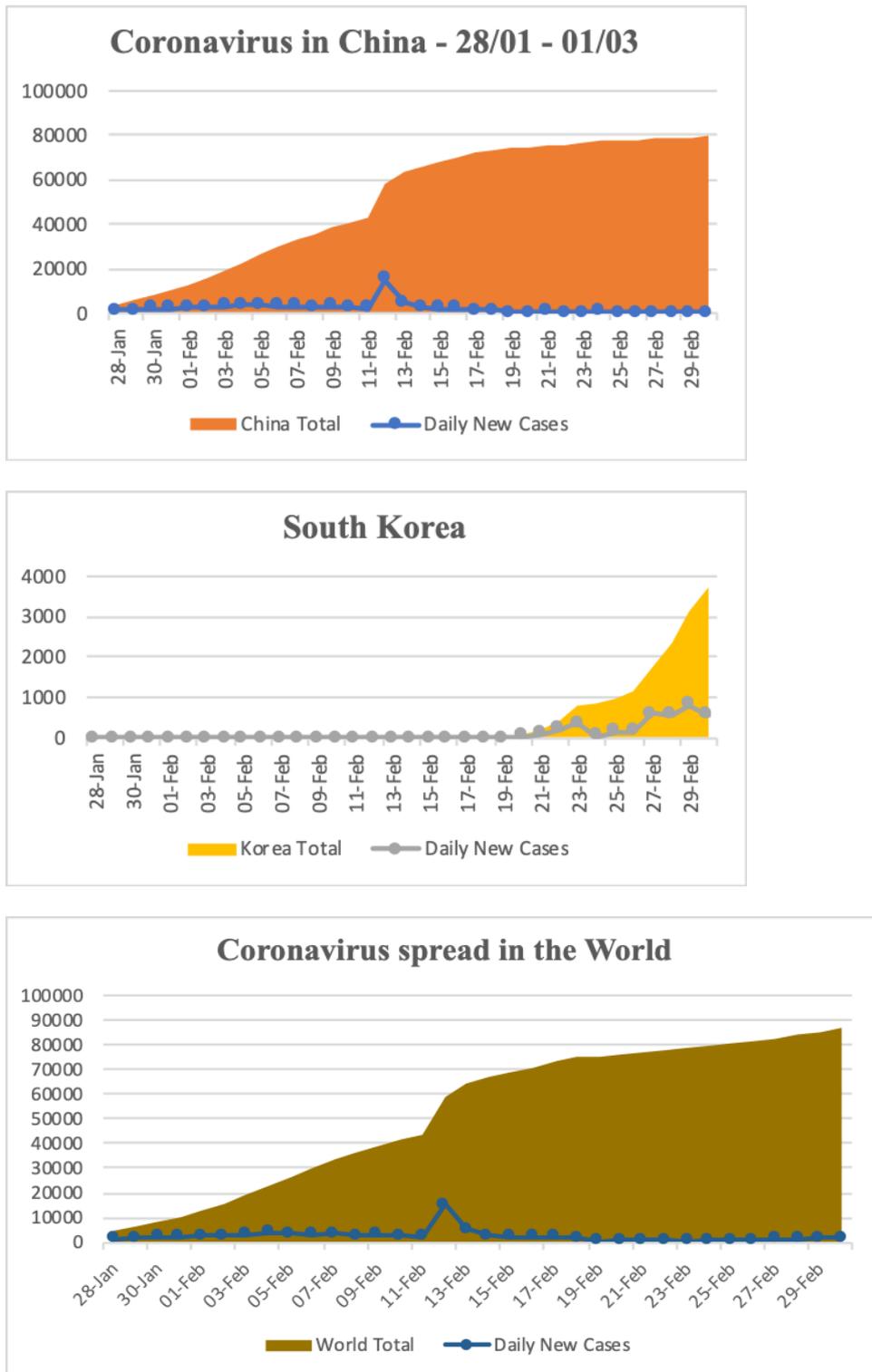
Meanwhile, aligned with the previously mentioned figures, response to crisis are registered, especially at the peak periods. The latter have impacts on countries, locals, and more severely on the tourism industry. Usually, locals, have no other choices than undergo the crisis, tourists would consider safety first. Thus, several direct impacts have reached airlines, then cruise lines, and hotels. The tourism loop is easily interrupted, as this is justified by several previous research studies (Chien & Law, 2003; Kuo et al, 2008; Paraskevas et al, 2013; Novelli et al, 2018)

### **The current facts and the unknown elements of the crisis**

<sup>1</sup> (GR) Growth Rate: The equation takes into account the time of intervals in our data.  
 $GR = (\text{present/past})^{1/n-1}$ . N=number of time periods.

As we are going through the Covid-19 outbreak, and while the number of incidents, infected individuals and related deaths, are growing (JHWSE, 2020) we experience various reactions and impacts on a national, regional and global scale. The development of the cases shows significant growth and curb variations between different countries and regions (Figure.2).

Figure 2 Coronavirus – China, South Korea and the World



Source: Authors (2020)

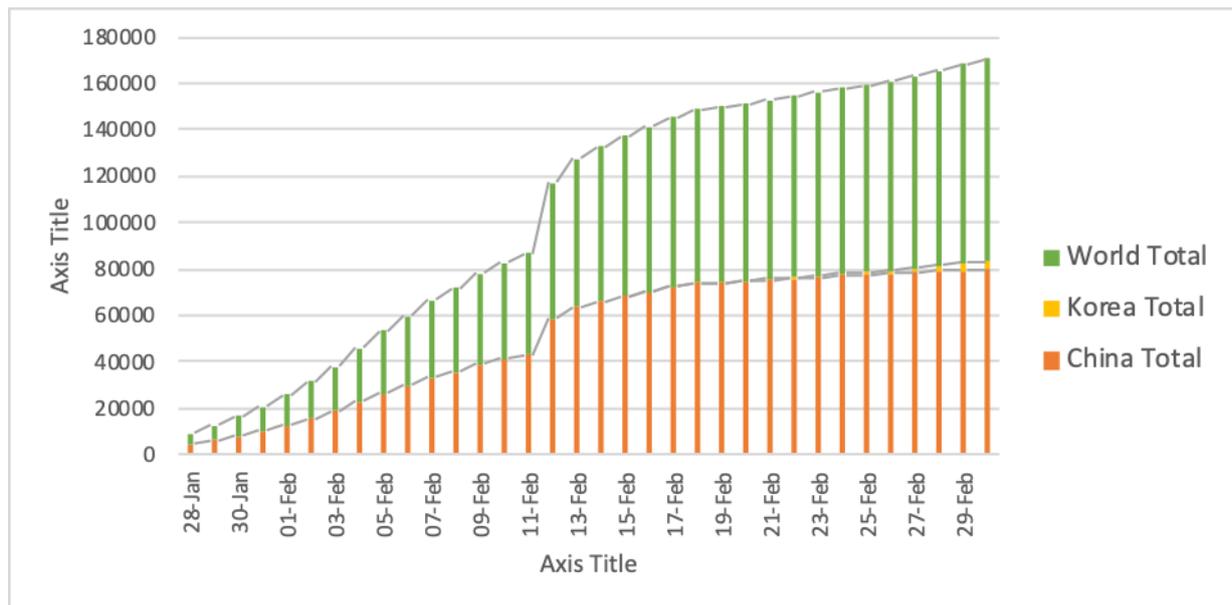
Development and volume of cases in Korea (Korea CDC, 2020) has a significant time delay with China (JHWSE, 2020) but we identify similarities on the curve (refer to figure 3).

As Covid-19 started to spread globally from China to the rest of the world, in APAC region, North America and Europe, the human suffering is not only related with health. In fact, the virus may be as contagious economically as it is medically. The global media are continuously reporting the situation on national or regional level. Such information channels include reliable networks from Europe (BBC News, Euronews, and France24, 2020) and specialized international organizations (WHO, 2020). As the medical data changes hourly the list of the ten largest economies is almost identical, with the ten nations hit hardest by COVID-19 (Baldwin & Weder, 2020).

China is by far the hardest hit, but we lately see exponential growth of cases in the G7 economies. Discussing just for US, China, Japan, Germany, UK, France and Italy, they account for 60% of world supply and demand, 65% of world manufacturing and 41% of world manufacturing exports (OECD, 2020). Supply chain contagion may also occur as countries like China, Korea, Japan and US are considered of fundamental importance of global value chains.

As travel restrictions are raised in order to minimize the outbreak effects, and also to support containment, tourism industry is potentially in a direction of a serious hit. Major events are canceled globally, and the overall population uncertainty result to a dramatic drop of travel demand and hotel occupancies. Estimations under current situation result to a scenario of a \$28bn loss of passenger revenues in Asia-Pacific airlines (IATA Economics, 2020). In addition, hotel occupancies are dropping from 50-90% depending on the country and on the number of registered infections. Recent reports in major tourism markets like US, Europe and China are showing occupancies around 10-20% in all major branded properties (STR, 2020). Besides, the cruise industry faces also tough time as extensive infection incidents among passengers occurred and this results to tremendous drop of demand for cruise trips (CLIA, 2020).

Figure 3. Coronavirus – comparison of the epicenters



Source: Authors (2020)

More facts of the impact of the disease by the 29<sup>th</sup> of February 2020:

- More than 200.000 flights cancelled worldwide;
- France as a Number 1 country in terms of number of arrivals, has 30 to 40% of drop so far, mainly of Chinese, who are considered as high spenders;
- Loss of more than \$90M in the tourism industry with a forecast of a potential coming loss of \$560M;
- Tourists fear travelling and flying - this is worsened by the sudden spread, following the denial of crisis, and the different scenarios of confining tourists inside premises, such as the Diamond Princess cruise ship, quarantined in Japan for more than 2 weeks, as well as the hotel in Tenerife. Easy management decisions, however, impacting negatively on tourists' perceived risk and their willingness to travel.
- Chinese tourists, South Korean tourists and very soon, Italian tourists are and are going to be the unwelcomed;

## 5. CONCLUSION AND THE COMING RESEARCH PROJECT

This paper has been created as a brief chronology of the Covid-19, only for a month, in order to see the span of the crisis and mainly, the effect of the latter on the industry of tourism. Every single day of a crisis has a tremendous negative result on the sector, the medium and small companies, the big ones, the economy and therefore on destinations. Countries have responded differently implementing almost the same strategy of denial, followed by containment. However, the timing given to each of the

previously stated responses made the difference in terms of impacts on tourists perceived risk and the perception of destinations as trouble spots.

The different scenarios presented at earlier stages of this work, aligned with the multiple facts worldwide, make of the Covid-19 a very important focus in the coming months.

The tourism industry is suffering, and the approaching possible directions are very tempting to be reviewed and studied. Therefore, as future step ahead, would be the study of the optimal strategies to implement in order to counter the crisis, which would be applied by governments and responsible bodies of the tourism industry.

## 6. LIMITS OF THE STUDY

This work is simply deductive and descriptive, based on facts and observations. Therefore, some of the data may be considered as subjective in nature.

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# INTELLECTUAL CAPITAL AS SOCIAL CAPITAL IN NON-PROFIT ORGANIZATIONS: A SYSTEMATIC LITERATURE REVIEW

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## ABSTRACT

Despite recent trends to re-evaluate the potential contribution of intangible assets in economic and social organizations, the Non-Profit Sector (NPS) is still characterized by some reticence to consider the relevance of these resources from a managerial, financial, and organizational perspective. This is even truer for Intellectual Capital (IC), which nowadays among the intangibles has been widely recognized as key success factor for the value creation of any socio-economic organization. This research, deploying a systematic literature review (SLR), aims to ascertain whether and how relevant studies about Non-Profit Organizations (NPOs) have explored the potential beneficial effects that could be generated by efficient governance and management of their IC, with specific regard to the influence that IC may exert as SC. The results emerging from the analysis have showed that so far, from a quantitative point of view, the interest about this specific issue has not been constant and systematic, while, from a qualitative point of view, three themes seem to be mostly investigated (institutional scope, human resources, and operational functioning).

*Keywords: Intellectual Capital; Social Capital; Non-Profit sector; Non-Profit Organizations; NPO; NPOs; Systematic literature review; Relational capital; Reputation; Intangible asset management.*

## 1. INTRODUCTION.

The importance and relevance that in the past have been attributed to intangible assets in economic and social organizations have emerged along the years with different emphasis. Scarce consideration was initially given to enhancing these elements both for profit-oriented organizations (Guthrie, 2001; Möller and Gamerschlag, 2009) and for public administrations, and perhaps even less for Non-Profit Organizations (NPOs). However, if at least in the for-profit sector some scholars have tried over the years to recognize the importance of knowledge and other intangibles (Penrose, 1959; Bell, 1973; Drucker, 1993), the same considerations cannot be repeated for public administrations and NPOs,

whose functioning and most of all purposes show completely different features as concerns capitalization, even when regarding intangible assets.

In truth, some typologies of these operators seem to be characterized by enormous potential when considered as critical value drivers. In this respect, peculiar attention should be paid to Intellectual Capital (IC), and maybe particularly in its potential component of Social Capital (SC) (Bueno et al., 2004); in fact, relevant research has identified IC and SC as key success factors to be used in the strategic and operational plans for the value creation of any socio-economic organization (Augier and Teece, 2005; Marr, 2005; Porter and Kramer, 2011).

Nonetheless, in the specific context of NPOs, some reticence to adequately consider the value of intangibles continues to persist: most probably, the absence of a strong profit orientation for NPOs may lead to an ambiguous assessment of their performance (Civitillo, 2016; Civitillo et al., 2018). In fact, NPOs are mainly governed on the basis of socio-economic interests and values that are vast, heterogeneous, and complex to express (Speckbacher, 2003): consequently, these organizations appear to be ideally constructed only on their mission and their related value system (Porter and Kramer, 1999), but this essence would not mean that intangibles assets cannot have specific relevance also in this specific field.

In this respect, this paper has been engineered as follows. With the objective of delineating a general scenario about the progress of the research on IC and SC particularly for NPOs (thus providing the investigation with an explorative engagement), after a narrative literature review a systematic literature review (SLR) has been conducted on the theme, arriving at highlighting results both from a quantitative and qualitative point of view; subsequently, results discussion, scientific and managerial implications, and research limitations and future directions have been developed.

## **2. LITERATURE REVIEW ABOUT IC IN NPOS.**

Economic organizations put in place a production process in which numerous (from a quantitative point of view) and different (from a qualitative point of view) resources, as inputs, are continuously worked for the generation of other resources as outputs, according to the well-known input-output model (Smyczek et al., 2020). In the past the more consistent contribution to value creation seemed to derive most of all from tangible assets, while today intangible assets, and above all IC, are believed to be most likely the main creators of value (Augier and Teece, 2005).

One of the main problems related to IC concerns its internal composition, which in truth depends on the different perspective or discipline that is involved in the discussion, and its consequent disclosure (Castelo Branco et al., 2010; Ousama and Fatima, 2012; Nardo and Vietri, 2014): although traditionally distinguished into human, structural, and relational capital (Roos et al., 1997; Bontis, 1998; Kong and

Prior, 2008; Kong, 2007; Kong and Thomson, 2006; Festa et al., 2016), with provision also about SC (Reed et al., 2006; Swart, 2006; Hashim et al., 2015), a globally accepted definition is still to be generated. The same issue seems also to concern the potential differences regarding the public sector, the for-profit sector, and, for what most interests in the current research, the NPOs (Marr, 2005).

It is very difficult to assign an orthodox evaluation to intangibles, most probably because they rarely have 'common' exchange value; in this respect, Hall (1992 and 1993) introduced an interesting conceptual approach that interprets intangible resources upon the distinction, on the one hand, as 'assets' and, on the other hand, as 'competences'. As assets, intangibles include reputation and intellectual property rights about patents, trademarks, copyrights, registered designs, contracts, industrial secrets, and databases; as competences, intangibles includes the know-how of the employees (considering also suppliers, consultants, and distributors) and the collective attributes that can be added-up to the organizational culture.

Unfortunately, this fascinating and somehow 'question-resolving' distinction presents an essential limit. While intangibles interpretable as 'assets' may be subjected to an assessment that, although complex, could be technically possible, intangibles conceivable as 'competences' are quite impossible to assess, because they are fundamentally 'linked' to the organizational structure in which where they work, and thus they could have not the same value in another organizational context.

That is why, according to other studies, the IC "... held by a firm can be thought of as a form of "unaccounted capital" within the traditional accounting system. This "unaccounted capital" can be described as the knowledge-based equity that supports the knowledge-based assets of a firm" (Abeysekera, 2006, p. 61). In this respect, there is evident consideration that, in the current and most of all future business scenarios, the power of IC is direct expression of the ever-major influence of the knowledge base and its knowledge management (KM): in a knowledge economy, knowledge-based resources – i.e., intangibles – become source of differential capability, sustainable competitive advantages, and successful strategic thinking (Hall, 1993).

Nevertheless, it is important to underline that "... extracting value from intangible capital is a much more complicated and risky process than extracting value from tangible (physical) capital. Intellectual property, standing alone, generates little or no value to the final consumer" (Augier and Teece, 2005, p. 18). Thus, after identifying intangibles as relevant if not strategic levers, the most critical part of the consequent problem concerns how to extract value from these resources.

It is to highlight that undoubtedly, the greatest part of the studies so far conducted on methodologies, techniques, and tools for extracting value from IC – or similarly, on how to govern and manage IC – has considered almost only for-profit organizations, sometimes analyzing even more specifically the influence of the ownership structure and the related profit expectations (Chouaibi and Kouaib, 2016).

Whereas scarce attention has been reserved to the public sector and to the Non-Profit Sector (NPS), with the latter representing the focus of the current study.

In truth, in recent years the importance of NPOs has considerably increased in both developed and developing countries (Salamon and Sokolowski, 1999): in fact, they have been representing one of the main actors in the supply of specific categories of goods and services, as well as one of the main employers of workers (Salamon and Anheier, 1996; Kong, 2010). This situation is mainly due to their 'civic engagement' that from a social perspective has been gaining ever more favor on behalf of communities and institutions but that from an economic point of view still shows several complexities, mainly with reference to governance and management (and related activities/operations), and most of all their correct reporting, being ever more required the assurance of the value that they are able to generate.

In general, the absence of a clear for-profit aim and at the same time, the presence of a clear social aim, but inevitably forced to respect economic conditions, hugely influence the lack of specific financial parameters to measure the organization's performance, sometimes leading to ambiguous assessment of their value (Civitillo, 2016; Civitillo et al., 2018). Therefore, their organizational, managerial, and financial functioning is under the global influence of their specific value creation system (Najam, 1996; Porter and Kramer, 1999; Putnam, 2001; Speckbacher, 2003; Toepler and Anheier, 2004): politics, religion, voluntarism, philanthropy, or compassion are only some examples of these complex circumstances.

The core matter, however, is that nowadays also NPOs act in a highly competitive environment, characterized, on the one hand, by a growing demand for services from the community and on the other one, by increasing competition from the public sector and the for-profit sector (Ramia and Carney, 2003). This evolution has generated the need also for NPOs of specific managerial concepts, principles, and techniques (Salamon and Sokolowski, 1999; Stone et al., 1999; Salavou and Manolopoulos, 2019).

In this respect, NPOs have an extreme need both to extract the most efficient value from existing resources (*exploitation*) and to generate additional value from innovative resources (*exploration*), then adopting an ambidextrous approach to the economic environment. This advanced orientation implies major and better use of knowledge, thus presenting, as aforementioned, new fundamental issues concerning IC governance and management also for NPOs.

Basically, the conceptualization of IC as a fundamental lever for the strategic management of NPOs is direct consequence of what has been formerly reasoned about For-Profit Organizations (FPOs). In fact, it is to be carefully considered that almost initially the development of the research on NPOs' governance and management had focused on the assumption that these organizations had to be

technically compared to FPOs, with the mainstream literature that highlighted the need for NPOs to be more 'business-like' oriented: thus, although without declining the specific characteristics of the non-profit orientation, many studies (Weisbrod, 1991; Austin, 2000; Brinckerhoff, 2000; Frumkin and Andre-Clark, 2000; Moore, 2000; Dart, 2004) have asked for the adoption of for-profit strategies and operations to gain success in the NPS (Kearns, 2000), with consequent influence also on the evaluation about performance and capital, even when intangible and/or intellectual (Festa et al., 2020).

However, in scientific research about FPOs, profit orientation mostly serves as simple common language for governing, managing, measuring, and communicating the organization's performance (Sawhill and Williamson, 2001; Speckbacher, 2003). Whereas NPOs, at least in normal conditions, have no financial aims, but financial objectives at most, in any case to be used as means for evaluating the organization's efficiency and not the organizations' efficacy (Speckbacher, 2003), otherwise the use of for-profit managerial techniques would translate most probably into a real vulnerability for NPOs (Kong, 2007).

Nonetheless, if the issues about IC in FPOs are complex, as above cited, it is reasonable that understanding how IC can be governed and managed in NPOs, because of their 'normal diversity', is even more difficult, although these resources could be physiologically appropriate most of all for non-profit contexts. In fact, the IC concept is essentially meant to valorize intangible assets, often adopting qualitative and non-financial indicators that most probably are indispensable in modern business evaluation (Krishnan and Ramasamy, 2011), thus representing a sort of strategic framework that could be potentially able to coordinate the organization's performance with the peculiar socio-economic environment that embraces the NPS.

More particularly, IC seems to contribute to NPOs' strategic positioning by offering a more qualified understanding of the allocation of the organizational resources, allowing at the same time to improve the performance evaluation by providing meaningful information to the variegated set of stakeholders (Kong, 2007). IC can be crucial for NPOs, becoming a useful tool to favor changes in functioning behaviors and value perceptions: in this respect, Roos argues that the "... deeper purpose of an IC approach is to change people's behaviour, not least through changing the corporate language. The concept of IC brings with it a whole set of new values about what is good and what is bad management" (1998, p. 151).

Finally, the importance of IC for NPOs has emerged also with reference to one of the most relevant characteristics for this kind of economic sector, i.e. the solidarity, that has value not only for the potential beneficiaries of the organization's activity, but also with regard to NPOs collaboration/cooperation/cooperation (for example, the software re-use in open-source projects). From this point of view, the economic value of the organizations' knowledge does not depend only on its

contextual utility, but also on its potential transfer and replication (Augier and Teece, 2005), with SC playing a relevant role in knowledge alliances (Ferreira and Franco, 2019), thus providing further perspectives of application for IC governance and management in NPOs'.

### 3. RESEARCH QUESTIONS AND METHODOLOGY.

Based on all the above considerations, this study aims at providing evidence for potential responses to the following research question, according to the explorative nature to the study:

*“How have IC and more specifically SC been considered in the scientific literature about NPOs?”.*

As investigation method, a SLR approach has been adopted, considering that it should represent the most adequate examination tool in relation to the nature of the research question. In fact, “... a review of the literature to provide the best evidence for informing policy and practice in any discipline, is a key research objective for the respective academic and practitioner communities” (Tranfield et al., 2003: 207).

The application of a systematic investigation approach to the literature review requires first of all the identification of the objects to be analyzed: in this respect, the current research has examined the two databases of publications that are commonly considered the most reliable as concerns their scientific indexing, impact, and reputation, i.e. Web of Science (WOS) and Scopus (Walters, 2016). These two databases have been investigated using the following query syntaxis:

*“intellectual capital” OR “social capital” AND “No\* Profit”*

obtaining the following results (cf. Table 1).

| Scientific database  | Results from the query |
|----------------------|------------------------|
| Web of Science (WOS) | 095                    |
| Scopus               | 155                    |

*Table 1 – Results from the query on WOS and Scopus (Authors' calculation).*

Taking into careful consideration the differences about the two scientific databases (Archambault et al., 2009; Abrizah et al., 2013; Chadegani et al., 2013; Bartol et al., 2014; Sánchez et al., 2017), and to avoid that these differences could affect the results of the investigation, both of them have been considered only about the common documents that they have generated through the filtering. Specifically, the total number of scientific documents under common 'coverage', and that finally has been examined, is equal to 66 items, whose characteristics are illustrated in Figure 1, representing the set of elements to be analyzed in the SLR.

| Description                          | Results     |
|--------------------------------------|-------------|
| Documents                            | 66          |
| Sources (Journals, Books, etc.)      | 61          |
| Keywords Plus (ID)                   | 214         |
| Author's Keywords (DE)               | 247         |
| Period                               | 1997 - 2020 |
| Average citations per documents      | 14.44       |
| Authors                              | 121         |
| Author Appearances                   | 137         |
| Authors of single-authored documents | 21          |
| Authors of multi-authored documents  | 100         |
| Single-authored documents            | 23          |
| Documents per Author                 | 0.545       |
| Authors per Document                 | 1.83        |
| Co-Authors per Documents             | 2.08        |
| Collaboration Index                  | 2.33        |
| Document types                       |             |
| ARTICLE                              | 55          |
| INPROCEEDINGS                        | 11          |

**Figure 1. Characteristics of the items, common to WOS and Scopus, under analysis (Authors' elaboration).**

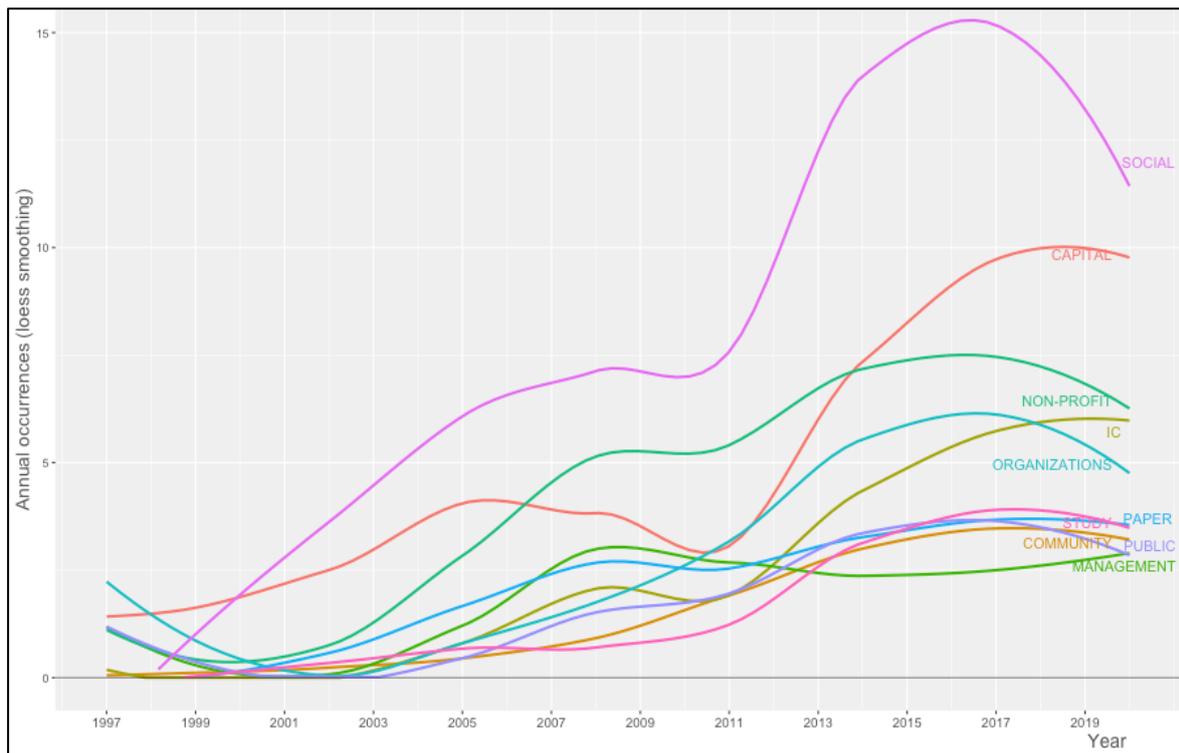
The SLR has been conducted using a specific open-source software, 'Bibliometrix' (bibliometrix.org). This package "... provides a set of tools for quantitative research in bibliometrics and scientometrics. It is written in the R language, which is an open-source environment and ecosystem" (Aria and Cuccurullo, 2017: 963).

#### **4. RESULTS FROM THE SLR.**

As summarized in Figure 1, the scientific documents related to research about IC or SC issues in the NPS have been published since 1997, and consist of 66 elements, relating to 61 bibliographic sources. From a qualitative point of view, most of these elements are scientific articles (55), while 11 are proceedings.

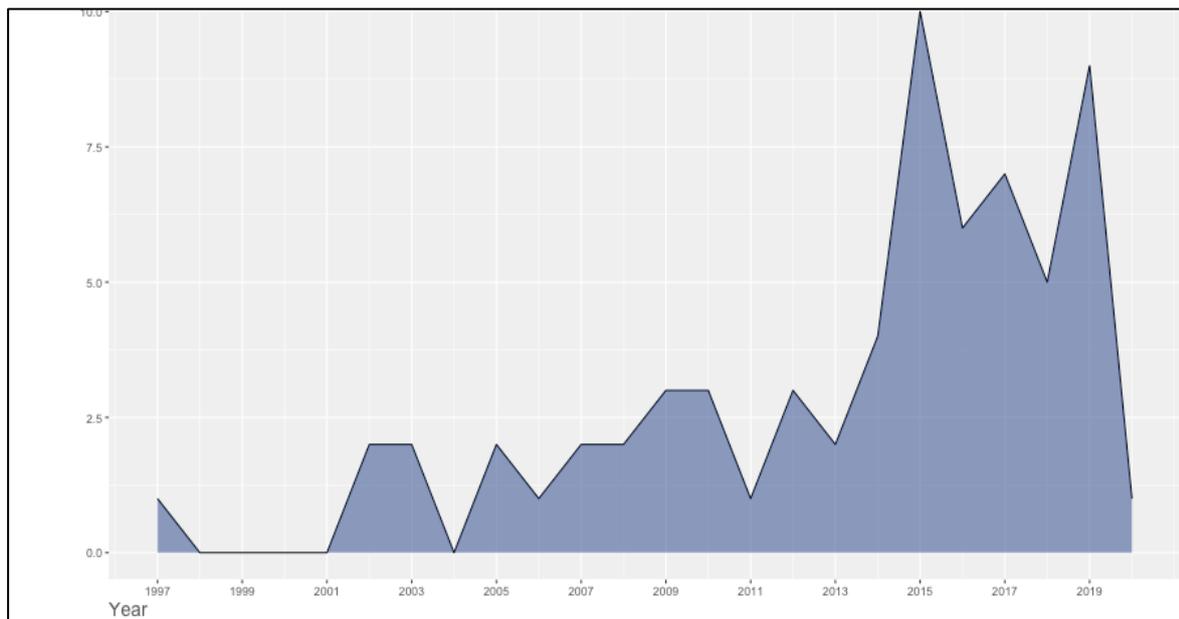
The bibliometric analysis has highlighted that there have been 121 authors involved in the field: 21 of them are single-authored documents' authors, while the other 100 are multi-authored documents' authors. This circumstance means that this kind of research represents a theme that greatly stimulates collaboration among different authors: in fact, the number of documents per author is equal to 0.545 and the number of authors for each document is equal to 1.83, with a collaboration index equal to 2.33.





**Figure 3. Words dynamics analysis (authors' elaboration).**

The above cited words, considering the research context, allow most probably to highlight some peculiar aspects of the issues under investigation. In fact, the multidisciplinary nature of the theme, the ever more increasing role of KM, the constant interference with the human relation sphere, and the fiduciary component are all dimensions with great relevance in this field.



**Figure 4. Annual scientific production (authors' elaboration).**

With regard to the evolution through the years of the research, the bibliometric analysis (cf. Figure 4) has showed that the IC and SC issues in the NPS have known the periods of the greatest scientific

productivity in 2015 (10 documents in the year) and in 2019 (9 documents in the year). More in general, this peculiar theme has experienced a significant increase in the interest of scholars since 2014, and at the same time it seems nowadays constantly attractive for the academic community, but frankly with continuous ups-and-downs.

The Conceptual Structure Map in Figure 5 reports the graphical representation of the results emerging from Multiple Correspondence Analysis (MCA) and Cluster Analysis (CA): "... as words are more similar in distribution, the closer they are represented in the map" (Aria and Cuccurullo, 2017: 969). Thus, this elaboration provides evidence about the potential proximity of some concepts ('words') used in the analyzed documents and therefore, highlights further possible interpretation of the aspects underlying this research.

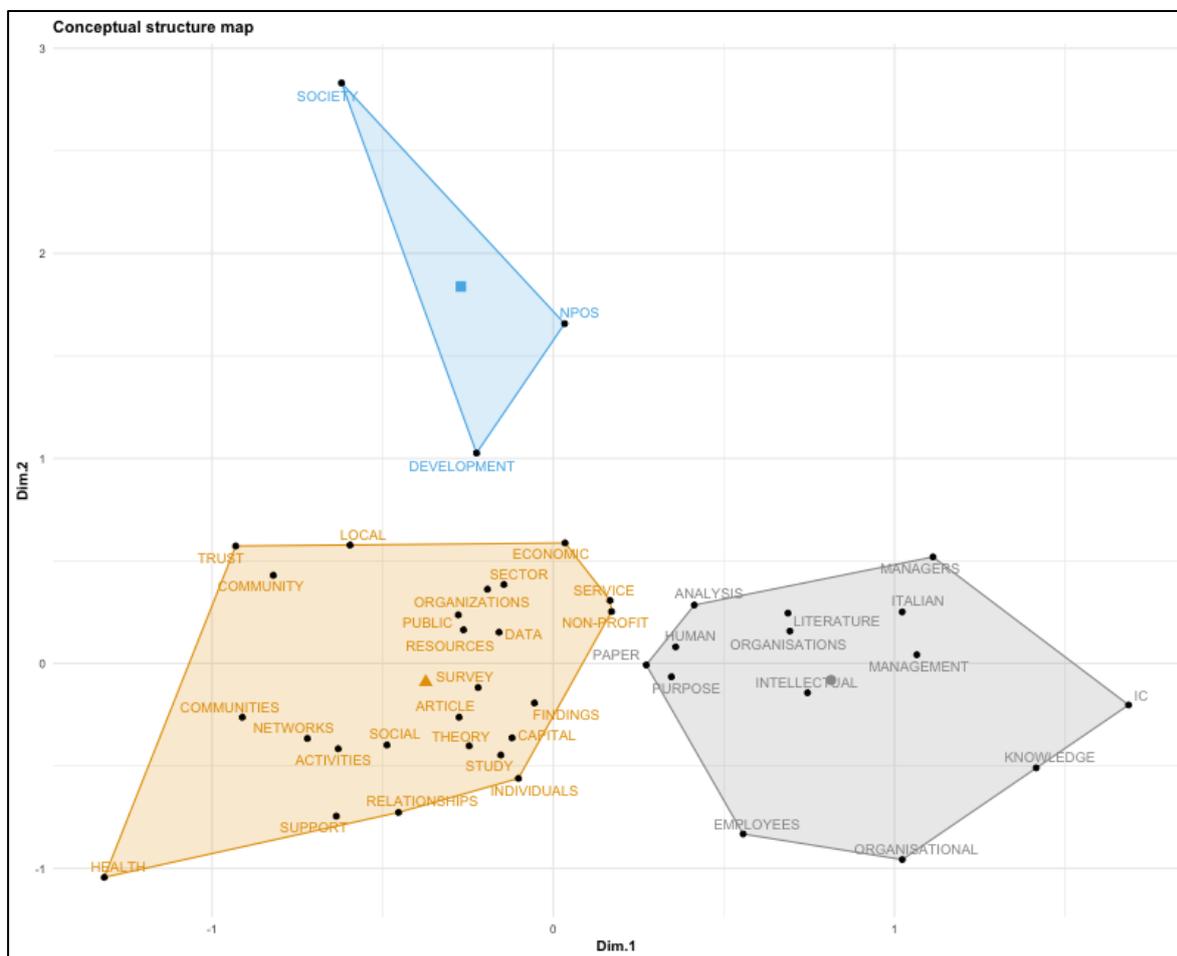


Figure 5. Conceptual structure map (authors' elaboration).

In this specific situation, three main groups/areas seem to emerge from the analysis. A first terminological and conceptual group is represented by a sort of narrow triangle, whose vertices are 'NPOs', 'Society' and 'Development': this area would seem to express that, from the evidence of the context under investigation, NPOs are profoundly interconnected with the development of the

society, thus indirectly confirming this result the reliability of the research. This group/area of words (and then, related research) seems mostly oriented to the institutional scope of the NPOs.

A second, vaster terminological and conceptual group consists of a sort of irregular hexagon, whose vertices are the words 'Organizational', 'IC', 'Managers', 'Analyses', 'Paper', and 'Employees'; whereas inside the hexagon find place (among the others) concepts like 'Knowledge', 'Intellectual', 'Management', 'Purpose', and 'Human'. This combination seems to highlight the correspondence that IC and KM have with the most important purpose of the organizations under investigation, i.e. the human dimension, confirming explicitly the relevance of these issues also in the NPS. This group/area of words (and then, related research) seems mostly oriented to the role/contribution of the human resources.

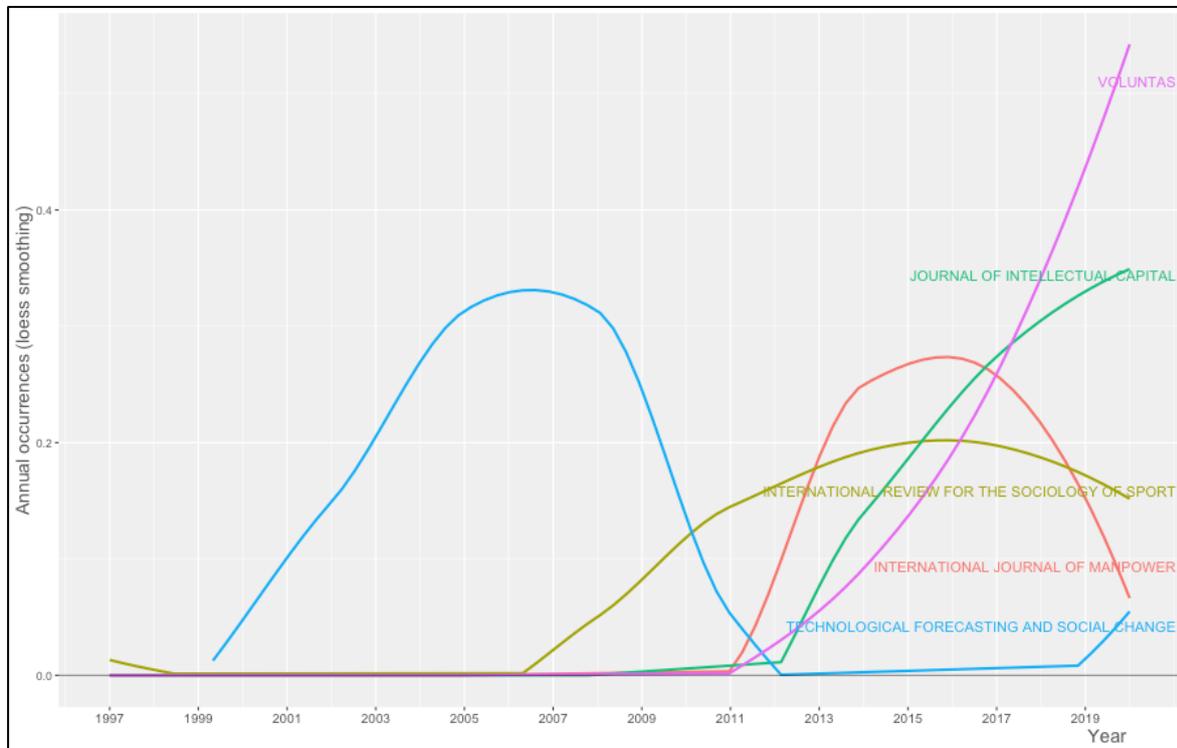
The third terminological and conceptual group, the vastest in the graphical representation, is constituted by an irregular pentagon, whose vertices are the words "Individuals", 'Non-profit / Service', 'Economic', 'Trust', and 'Health'; whereas inside the polygon find place (among the others) concepts like 'Support', 'Relationships', 'Networks', 'Community', 'Local', 'Social', 'Public', and 'Capital'. This appears to be a set of concepts that express the main values of the NPS, which traditionally represents the environment for the protection of aspects that normally are not at the center of the attention of the private business, but in many cases, neither of the public one. This group/area of words (and then, related research) seems mostly oriented to the operational functioning of the NPOs.

Finally, the analysis that has been represented in Figure 6 provides evidence about the trend over the years of the frequency of IC and SC issues in the NPS in some relevant international journals. The journals that have been reported in the following representation are those for which it has been possible to count at least two publications annually.

For some of them (Technological Forecasting and Social Change, International Journal of Manpower, and International Review for the Sociology of Sport), a sort of Gaussian distribution of the annual occurrences seems to arise, with different peaks (Technological Forecasting and Social Change around 2006, International Journal of Manpower around 2016, and International Review for the Sociology of Sport around 2016).

Instead, for the others (Journal of Intellectual Capital and Voluntas) the current trend is characterized by a continuous increase about the scientific production in the field, even though, or maybe just because, it seems that they have started to publish research on this specific issue after the journals of the first, abovementioned group. Considering a comparison, it could be even possible that in the near future a Gaussian curve will occur also for these two journals, on the basis of a sort of 'swing' of these topics in the context of the international scientific debate.

Thus, basing our considerations on the above analyzed observations, with the intention to provide global response to the fundamental research question (“How have IC and more specifically SC been considered in the scientific literature about NPOs?”), there seems to exist evidence for at least two considerations, one more quantitative and the other one more qualitative.



**Figure 6. Word source dynamics (authors' elaboration).**

From a quantitative point of view, so far IC and SC in the NPS have not shown constant and systematic presence in the scientific literature, highlighting almost 'sinusoidal' trends over time that therefore are not able to guarantee a reliable prediction about the progressive expansion and consolidation of the knowledge in the field: however, the considerable increase that has been detected for two journals specifically, could be a very encouraging evidence to imagine further development for this kind of research.

From a qualitative point of view, three seem to be the most relevant areas of scientific interest in the field: institutional scope, human resources, and operational functioning. These aspects are naturally connected from a systemic point of view, but from the SLR results interpretation their boundaries in terms of methodological development appear to be rather separated.

## 5. SCIENTIFIC AND MANAGERIAL IMPLICATIONS.

From a theoretical point of view, it seems evident that major effort is required on behalf of the scientific community about the research on IC and SC for NPOs, because of the growing importance

that the NPS has been assuming and will assume ever more in the future, most of all if considering that methodologies, techniques, and tools of the management for FPOs have been already taken into careful consideration for their contextual application to the NPOs' world. Most probably, the real effort that needs to be generated will concern the contextual characteristics of IC in this sector, with the aim of investigating not only the performance margins or ratios that could be generated by intangible assets, but also and above all, the specific value margins and ratios, with peculiar regard to the human and social aspects of this value.

From a managerial point of view, the three most important themes emerging from the SLR about IC and SC for NPOS regard institutional scope, human resources, and operational functioning, and thus to improve the performance of these organizations it could be desirable to focus most of all on these aspects, being this evidence at least a symptom of major concern. Triangulating from a conceptual point of view these three elements, a specific attention seem necessary for the human resource management, not only (but also) from the point of view of the operational functioning, but also (and not only) from the point of view of the institutional scope, thus highlighting the double contribution that the 'service encounters' can provide also in the NPS, as human capital (stock that can be accumulated on a knowledge basis) and SC (stock that can be accumulated on a reputational basis, also by virtue of workers that at all levels are efficient, transparent, and oriented to human and social utility).

## **6. RESEARCH LIMITATIONS AND FUTURE DIRECTIONS.**

The most relevant constraints of the investigation concern naturally the criteria of the SLR. Consequently, further avenues of the research could be considered as attempts to overcome these restrictions.

First, the study has been conducted only on two scientific databases (Web-Of-Science and Scopus), which, although being the most authoritative, could be limited in the quantity of items to process, and thus other sources could be considered (Google Scholar, for example, with all its specific limits). Second, the investigation has adopted a specific syntaxis ("intellectual capital" OR "social capital" AND "No\* Profit"), and thus other specific keywords and/or other specific syntaxis would naturally provide different results, maybe taking suggestions from the keywords that have emerged in the three groups/areas regarding institutional scope, human resources, and operational functioning.

Third, the documents under investigation are only the ones that are common to Web-Of-Science and Scopus, while extending the research also to the other documents from these two sources that respond to the used query would automatically enlarge the perimeter of analysis. Fourth, the investigation have considered only the abstracts, to enlarge the range of the words under analysis (although only

the first 100 words have been considered), but at the same time excluding other meta-data and clearly more in general the content analysis of the whole text of the papers; thus, further research could loosen these criteria, generating bigger data to process.

Fifth, the period under analysis ranges from 1997 to 2020, and another temporal interval could be designed for the analysis, although the one that has been considered seems quite solid, just because it considers only common documents; most probably, careful attention from a temporal point of view must be paid particularly to the two journals with an increasing publication trend in the field, i.e. *Journal of Intellectual Capital* and *Voluntas*. Sixth and finally, the software that has been used is very specific: this is certainly a strength, considering also the scientific references that support it, but at the same time it is clearly understandable that other application packages, with different internal rules, would provide different outcomes, most of all as concerns the qualitative interpretation of the results.

## 7. CONCLUSION.

This research has investigated the existing academic literature regarding IC and SC particularly in the context of NPOs. Even though the nature of the study is clearly explorative, the results of the SLR have provided sufficient evidence about the limited interest of the international scientific literature for this topic, both considering the number of publications over the years under examination and detecting the different journals that show peculiar trends about the number of publications over the years.

In truth, the evolutions that have been characterizing the society, the economy, and the service market have forced NPOs to deal with the issue concerning IC in general, and thus some development in the field should be quite natural. Nevertheless, the investigation has demonstrated that, at least so far, reticence to adequate investigation continues to persist.

Reasons for this lack of consideration can be multiple. A possible explanation could regard the intrinsic characteristic of the NPOs, i.e. the absence of the profit orientation, which could have influenced some concern about their scarce – or even absent – ability to create value. In other words, the ‘non-profit’ dimension of these organizations could have determined the marginality in the research about IC – and in this context even SC – because of the misleading conviction that where there is no profit, there is also no capital, but only patrimony.

In this respect, it is to highlight firmly that the natural non-profit orientation of the NPOs does not imply absence of value, since these organizations could be more correctly defined as ‘non-profit-distributing’ rather than ‘non-profit-making’ entities (Anheier, 2014). This means that all incoming monetary flows are destined to the management of their institutional activities and therefore, to their mission (Civitillo, 2020), and that NPOs are able to generate indisputable advantages in terms of social

value production (Porter & Kramer, 1999; Wondolleck & Yaffee, 2000; Smith, 2008), also thanks to the efficient governance and management of IC and SC.

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## EXPLORING THE SHARING ECONOMY AND RELATED CONCEPTS

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### ABSTRACT

Sharing is an act that has accompanied us since the dawn of humanity, however, with the technological explosion and its constant evolution, new terms based on sharing have appeared, namely the Sharing Economy. However, the literature shows us that this term is mostly used in the wrong way, being generalized for each and every act of sharing. With its growing notoriety, the Sharing Economy has been largely exploited by the scientific community, especially regarding the reasons that lead individuals to share. However, there is a lack of research that differentiates all terms associated with the Sharing Economy, whether they are Collaborative Consumption, Access-Based Consumption, among others. The present essay aims to make this differentiation, thus contributing to the correct use of terms and avoiding the generalization of the Sharing Economy for all acts. For this, a literature review was carried out in which the various terms used as Sharing Economy were compared between the various authors, as well as between companies that practice or contribute to the sharing of goods and services.

*Keywords: Access-based Consumption; Collaborative Consumption; Sharing; Sharing Economy;*

### INTRODUCTION

Technology and globalization are two drivers for the industry development. This constant evolution and simplicity of IT means supports the expansion and the appearance of new businesses. Proof of this is the exponential growth of the Sharing Economy in the last decade (Teubner & Flath, 2019). The PricewaterhouseCoopers even estimates that business revenue related to Sharing Economy will reach 335 billion in 2025, while in 2015 the revenue has been 15 billion (PWC, 2015). These figures support the idea of several authors that the Sharing Economy is a fast-growing phenomenon (Belk, 2014a; Bocker & Meelen, 2017; Bradley & Pargman, 2017; Gobble, 2017). Despite this reality, sharing it is not a new phenomenon, it has been with us since the dawn of humanity. Long before the birth of networks and any computer, sharing was already practiced, especially among people close to individuals (Belk, 2010). The internet only brought new opportunities for this practice (Möhlmann, 2015), opening new horizons for sharing, supported by globalization. Uber and Airbnb are two of the most cited companies when looking for information about the

Sharing Economy (Martin, 2016), despite the essence of Uber being contrary to this business model. In addition to these two companies, many others are cataloged as Sharing companies and every day new ideas and models appear that focus on the sharing of goods, to the detriment of their sale (Belk, 2014b). This consumer paradigm shift, which leads consumers to prefer sharing over purchase, has captured the attention of both the scientific community and organizations. The latter realized that they had to rethink business models and innovate to respond to this consumer demand, remaining competitive in the current market. An example of this is Volkswagen, a German vehicle manufacturer that launched “We Share”, a car-sharing service in Berlin with electric cars. Regarding the scientific community, this attention is related to the reason that leads to this paradigm shift (Baumeister, Scherer & Wangenheim, 2015). However, even under this media coverage, the literature on the various concepts of Sharing is still scarce and not rigorous. In addition, the Sharing Economy concept is not infrequently used.

In this way, this paper aims to fill this gap in the literature. Thus, our purpose is to contribute to a clarification in the use of the various concepts associated with the Sharing Economy, highlighting the differences and the similarities between them.

The following section discusses and compares the different concepts.

## **THEORETICAL BACKGROUND**

Technology and globalization make it possible to create new business models based on sharing at the expense of property (Daunoriene et. al., 2015), however, this verified increase results from a mentality shift of individuals. According to Botsman and Rogers (2011), the 2007-2008 financial crisis was a catalyst for this change in mentality, leaving people more predisposed to new ways to access products or services given their economic benefits (Belk, 2014b; Hamari et al., 2016; Mohlmann, 2015; Pizam, 2014). The concern with environmental is another major factor that favors sharing (Bardhi & Eckhardt, 2012; Belk, 2014b; Hamari et al., 2016; Heinrichs, 2013; Mohlmann, 2015). Convenience, given that the time and effort in acquiring a product is greater (Seiders, et al., 2007), and the new provided experiences (Babin, et al., 1994), are other factors that lead individuals to choose the world of sharing.

Nevertheless, sharing, a generous and altruistic word, has become from a non-profit act to a business model. It is important to mention, as we have seen, this type of business model has numerous associated advantages. Furthermore, based on overcapacity (Jing & Sun, 2018) it enhances population, consumerist, financial and knowledge decentralization (Ravenelle, 2017). Likewise, this type of business model makes it possible to bring underdeveloped countries closer to development and to all associated benefits, namely with regard to humanitarian crises.

In fact, these new business models based on sharing are being associated with terms incorrectly, as seen in the literature. In a first phase, it seems that the term Sharing Economy fits any new business model where something is shared. However, this does not represent the truth. Juliet Schor (2016) goes so far as to state that a solid definition of the Sharing Economy that reflects common use is practically impossible. Belk (2014a), on the other hand, argues that there is no consensus on the meaning of Sharing Economy or what defines sharing and not sharing due to the different use of concepts by different people and organizations. In the same order of thought, Belk (2014a), uses the “umbrella concept” to represent the use of the term Sharing Economy in society.

There are several authors who claim that there is no definition of Sharing Economy and that the term is used to describe another type of sharing (Schor, 2016).

Added to the sharing, there are innumerable concepts usually used: Sharing Economy

(Möhlmann, 2015); Collaborative Economy (Botsman and Rogers, 2009); Collaborative Consumption (Herbert and Collin Lachaud, 2017); Peer-to-peer Economy (Bellotti et al., 2015, p. 1); Access-based Consumption (Bardhi and Eckhardt, 2012); Connected Consumption (Schor and Fitzmaurice, 2015); Peer-to-peer Rental (Hawlitschek et al., 2016); Peer-to-peer Markets (Perren and Kozinets, 2018); Commercial Sharing Systems

(Lamberton & Rose, 2012); Access-based Services (Botsman, & Rogers, 2010); “The Mesh” (Gansky, 2010); Peer-to-peer Sharing Economy (Wirtz, et. Al., 2019); Ondemand Economy (Selloni, 2017); Time Banking (Pais and Provasi, 2015). Gigeconomy (Schlagwein et. al., 2020). Among so many concepts, it is understandable the reason for so much divergence when trying to approach sharing. Qiao et al. (2018) support this idea by stating that the literature has not converged to a common nomenclature. Among all the terms there are logically correlations, however, there are clear differences between them. Most researchers believe that Collaborative Consumption is the same as Sharing Economy (Parguel et al., 2017), on the other hand, several others consider the concepts different (Belk, 2014b; Frenken, 2017; Hamari et al., 2016). The Access-based Service and Peer-to-peer Sharing Economy platforms are usually called Sharing Economy (Wirtz et. al., 2019). Bardhi and Eckhardt (2012) use the term Sharing Economy and Collaborative Consumption in their concept of Access-based Consumption (ABC). Botsman and Rogers (2010) argue that Access-based Services operate under different terms, such as Collaborative Consumption, Sharing Offerings and Commercial Sharing Systems. These are just a few examples that support the idea that in this way it is impossible to define Sharing Economy and aggregate terms. In one aspect, all the authors converge and, supported by the literature, we can say that: in any of the terms related to Sharing there must be interested parties with or without intermediaries, there must be a product or service, there must be an exchange, be it permanent or temporary, market-mediated or not, there may or

may not be monetary compensation, the ultimate goal may be to generate profit, or not. In almost all, technology, namely the internet, are central connecting different players. Having seen this and comparing exhaustively the way the terms are used by the scientific community and organizations, it is possible to differentiate the various concepts, as well as to contribute to possible definitions. Therefore, in order to simplify the understanding, the terms are distributed and identified considering these same characteristics.

With regard to the most popular theme, Sharing Economy, most authors refer to the fact that it is mostly a Peer-to-peer model and focused on temporary access to goods (Botsman and Rogers, 2011), however, exchanges they can be professional, rented or free (Palgan et al., 2017). Thus, we can say that Sharing Economy is a model mostly based on Peer-to-peer, and it can also be Business-to-peer or Business-to-consumer, performed mainly through platforms, without a mediator, that facilitate the match between the supply and demand for a service or product, enabling sharing, without definitive transfer of ownership, with or without profitable objective and mediated by social mechanisms. Example of Sharing Economy platforms: Peer-to-peer non-profit – Time Bank; For-profit Peer-to-peer - Airbnb; Non-profit Business-to-peer – Meal Connect; Business-to-peer for profit - Zipcar. It is important to note that for-profit business-to-peer is often referred to as Rental Economy (Pais and Provasi, 2015) given the operability through rental systems managed by companies without the existence of transfer of ownership. Through the literature review it was also possible to conclude that platforms like Uber are not part of the Sharing Economy since they are mediated by the market and not by social mechanisms. Thus, this type of platform fits into concepts such as "On-demand Economy" or "Gig-economy" (Meelen and Frenken, 2015). These concepts are characterized by being platforms that, in addition to being mediated by the market, serve as intermediaries for personal services being operated by professionals and non-professionals (Pais and Provasi, 2015).

Another theme often confused with Sharing Economy is Collaborative Consumption (Hatzopoulos and Roma, 2017). Botsman and Rogers, in 2011, defended Collaborative Consumption as a new term for traditional sharing, exchange, and rent, facilitated by new technologies. Belk (2014b), three years later, considered that Collaborative Consumption was situated between the sharing of something and the traditional market transaction as we know it. However, in 1978, the internet was still being considered and the term was already used by Felson and Speath (Belk, 2014b). However, over the years, dozens of contradictory definitions about Collaborative Consumption have been adopted, thus contributing to a complete confusion regarding the literature on the subject. Seen this and analyzing the various points of view, it was agreed that a single definition should start from concepts such as access, ownership, sharing and mediation. Thus, after analyzing the various

definitions, it can be said that Collaborative Consumption is a term derived from the Sharing Economy (Hamari, 2016), but less comprehensive, which is based on a Peer-to-peer model where they are lent, rented, shared goods or services, including spaces and solutions, operated through platforms and mediated by the market, in which there is no definitive transfer of ownership and requires monetary compensation.

Another concept, less covered than the previous two but in equal divergence in terms of definitions, is Access-based Consumption. According to Bardhi and Eckhardt (2012), Sharing Economy is a broader concept that also includes free exchanges, while Collaborative Consumption and Access-based Consumption requires monetary compensation and there is no definitive transfer. The similarity between Access-based Consumption and Collaborative Consumption is evident, however, crossing the various definitions existing in the literature it was possible to arrive at a differentiating definition. Therefore, according to Frenken and Schor (2019), Hamari et al. (2016), Bardhi and Eckhardt (2012), Botsman and Rogers (2010), it is possible to define Access-based Consumption as a model mediated by the market, where there is no transfer of ownership, requires financial compensation, taking place through platforms, through rental, lending, loan, dues paid to clubs and organizations, aiming at sharing spaces, services and products belonging to companies, through redistribution markets. During the present research, the term Access-based Consumption was often referred to as Access-based Service. Having not identified any differentiation between the terms, it can be concluded that they are synonyms since an individual consumes not only products but also services. In fact, in this situation individual consumes experiences.

|                           | Actors             | Platform     | Sharing Type                       | Property transfer | Mediation        | Compensation           | Profitable goal |
|---------------------------|--------------------|--------------|------------------------------------|-------------------|------------------|------------------------|-----------------|
| Sharing Economy           | Peerto-peer        | Yes (mostly) | Product; Service                   | No                | Social mechanism | Monetary; non-monetary | Yes; no         |
| Collaborative Consumption | (Mostly); B2C; B2B |              |                                    |                   | s                |                        |                 |
| Accessbased Consumption   | Peerto-peer        | Yes          | Product; Service; Space; Solutions | No                | Market           | Monetary               | Yes             |

|  |      |     |           |    |        |                |     |
|--|------|-----|-----------|----|--------|----------------|-----|
|  | B2C; | Yes | Product;  | No | Market | Monetary       | Yes |
|  | B2B  |     | Service;  |    |        | (may being per |     |
|  |      |     | Space;    |    |        | fee)           |     |
|  |      |     | Solutions |    |        |                |     |

*Table 1 - Concepts of "new" modes of exchange*

As noted, so far throughout the present Essay and according to table 1, the world around the Sharing Economy is far more complex than it first appears. We concluded that not all types of exchanges are part of the Sharing Economy, despite this being the most popular term. Associated with this popular business model, we find dozens of other terms that do not refer specifically to qualifying the action as the previous three. Again, several definitions were compared in order to find the best definition for each one. This is the case of Connected Consumption (Schor and Fitzmaurice, 2015) and Collaborative Economy, which represent themselves as an economy of networks of individuals that has changed the way we used to consume (Botsman and Rogers, 2009). Another term that has been gaining popularity is "The mesh", initially adopted by Gansky in his book "The Mesh: why the future of business is sharing" (2010). This term refers to the possibility of the individual to connect with others from a platform, based on the central strategy of "selling" the same product, talent or service several times. In this way profits and contacts are multiplied, thus offering greater visibility and enhancing additional sales.

Inevitably associated with sharing (Pais and Provasi, 2015), especially Sharing Economy and Collaborative Economy, we have the term Peer-to-peer Economy, Peer-to-peer Market or Peer-to-peer Market exchange. This term, as the name implies, is the economy among consumers, excluding organizations, where the holders of products or services produce value directly for other individuals in the same way and not for the market. Bauwens (2006) stated that in Peer-to-peer Economy it is necessary to give something to have access to everything and that it is the only model capable of facing the problems that the world faces, namely sustainability. When the concept Peer-to-peer Sharing Economy is used, the exclusion of Consumer-to-peer is understood. Peer-to-peer Rental, on the other hand, is nothing more than a simple rental, in its traditional form, between individuals (Hawlitshchek et al., 2016). Also, in this line are terms such as Time Banking and Local Exchange Trading Systems. These concepts are directly related to On-demand Economy however there are no cash transactions. Alternatively, the product or service is usually paid for with another service (Pais and Provasi, 2015).

As noted, the terms directly or indirectly associated with the Sharing Economy are numerous. Here (table 2), the main, most important and most used by the general population were mentioned and defined. It should be noted that in addition to these, there are other less used concepts and expressions, such as the Commercial Sharing System (Lamberton and Rose, 2012) which, as the name implies, is nothing more than everything we have been talking about. However, referring to all concepts, including used only by one author, would become an almost impossible job.

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**Access-based Service** is synonymous with Access-based Consumption and refers to the act itself.

**Connected Consumption and Collaborative Economy** – Represent an networks economy of individuals that has changed the way we used to consume.

**The mesh** – It refers to the possibility of the individual to connect with others through a platform, on a basis of making the product, service, talent yield several times.

**Peer-to-peer Economy, Peer-to-peer Market or Peer-to-peer Market exchange** – Market between individuals excluding companies, where value is not generated for the market, but directly for the individual, unlike P2C and C2C which represent interactions with and between companies.

**Peer-to-peer Rental** - Rental between individuals in their traditional way.

**Time Banking and Local Exchange Trading Systems** - Directly related to **On-demand Economy** however there are no cash transactions. Payment can be made with another product or service.

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*Table 2 - Sharing economy derived terms*

## CONCLUSION

The advantages of the Sharing Economy justify its popularity. Sharing economy presents a disruptive potential, challenging incumbents and presenting new opportunities (Kraus et al., 2020). Such a business model allows consumers to access products and services for the time strictly intended and for a price that would otherwise be impossible to beat (Bardhi and Eckhardt, 2012). Likewise, the environmental effect is preserved, reducing excessive consumption (Mont, 2002). Given all the advantages and considering the increased demand for the Sharing Economy, companies, to be competitive, need to change the way they approach the market. This need drives innovation and creativity in companies (Botsman and Rogers, 2010) and, thus, provides an

opportunity for entrepreneurs to contribute to the fight against humanitarian problems (Hamari et. Al., 2016). However, not all companies that grow under the Sharing Economy label really are. Uber is the perfect example, it is referred as belonging to Sharing Economy; however, it belongs to the On-demand or Gig Economy family (Meelen and Frenken, 2015). Wrong associations like this contribute to a stampede of biased definitions. Considering this reality, an exhaustive analysis of the literature was made, and concrete conclusions and definitions of the various terms associated with the Sharing Economy were reached, conceptualizing them. Among the various definitions, common and contradictory points were found, and these points were also compared with the terms usually used by companies. Thus, in addition to several other definitions, it was possible to define Sharing Economy as a model mostly based on Peer-to-peer, however it can also be Business-to-peer or Business-to-consumer, performed mainly through platforms, without a mediator, that facilitate the match between the supply and demand for a service or product, enabling sharing, without definitive transfer of ownership, with or without profitable objective and mediated by social mechanisms. Thus, this essay contributes to fill a gap in the literature that required maximum urgency, considering the growing confusion. As this business model evolves, new concepts emerge and, therefore, it is necessary that future investigations accompany them and contribute to their clear and concrete definition. It is important to note that different business models present diverse advantages and challenges, moreover not all contribute in the same level for a green consumer and a sustainable development.

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## INTEGRATING ABSORPTIVE CAPACITY AND STRATEGIC MANAGEMENT FOR DIGITAL TECHNOLOGY-BASED SMES

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### ABSTRACT

In this research, we aim to answer how organizational absorptive capacity (ACAP) component elements are embedded in the strategic management processes of digital technology-based small and medium organizations (SMEs). Following virtual consensus on knowledge as a strategic resource, the organizational capacity to absorb valuable knowledge, leveraging innovation and fostering performance, has become an important topic in strategic management. The basic assumption here is that organizational ACAP may be an important source of competitive advantage for digital technology-based SMEs. This paper contributes to the ACAP field by linking its component elements obtained from relevant published articles to strategic management imperatives for SMEs. Such imperatives were retrieved through a systematic literature review and the proposed links with ACAP component elements examined through case studies in the field. There are also benefits to practitioners, since the implementation of processes related to the proposed links might support management and operations in these specific SMEs.

*Keywords: absorptive capacity; strategic management; digital technology-based SMEs; small and medium organizations; SMEs*

### INTRODUCTION

Developing competitive advantages and generating above-average returns in an industry are at the heart of the strategy in many organizations (Grant, 1991; Porter, 1985). In pursuing above-average returns as a strategic endeavor, it is common sense that management of organizational knowledge assets is of the essence (Alavi and Leidner, 2001; Nonaka and Takeuchi, 1995), particularly when it relates to the ability to innovate and foster performance (Carrillo and Gaimon, 2004; Nickerson and Zenger, 2004). Following this argument, it becomes vital to develop one's absorptive capacity (ACAP) i.e., recognize the value of external knowledge, assimilate it at organizational level and apply it for commercial ends to leverage innovation and, ultimately, performance (Cohen and Levinthal, 1990).

ACAP is a vibrant construct among scholars and has appeared as a constant theme in innovation and strategic management research (Fabrizio, 2009; Rothaermel and Alexandre, 2009). In this study, supported by literature reviews, we proposed an integrative framework connecting the imperatives of ACAP and strategic management. We then tested this framework in the field for validation.

Overall, being able to develop and sustain competitive advantage, following the technology dynamics of the global environment, remains a major challenge for managers and organizational strategists. Digital technology-based small and medium enterprises (digital SMEs), operating with technological or scientific knowledge to supply market value through digital products and services, are specifically impacted by these dynamics (Giones and Brem, 2017). Despite several other challenges and resource constraints compared to larger companies (Tolstoy, 2009), knowledge is recognized as a key resource for these SMEs in achieving competitive advantages (Bojica and Fuentes, 2012). In this article, we focus our field of study on digital SMEs. We aim to shed light on the integrated processes and mechanisms of ACAP and strategic management to achieve superior performance to thrive in dynamic markets.

Although SMEs are more dependent on external knowledge when compared to larger companies in the same sector (Tolstoy, 2009; Zahra et al., 2003), research on knowledge management usually focuses on large companies with overall results not always applicable to SMEs (Cerchione et al., 2016). The generally limited capacity of SMEs to access specific resources poses an additional challenge to structuring their processes and mechanisms of external knowledge absorption through a comprehensive configuration (Langley and Traux, 1994; Liao et al., 2003). Despite the importance of knowledge absorption for SMEs, there are still few studies dealing with ACAP in the context of these companies (Flatten et al., 2011; Kim et al., 2014; Zahra et al., 2009). Concurrently, the general focus of empirical studies on strategic management is on leading companies in their sectors, or even public traded companies, with few such studies specifically targeting SMEs (Cerchione et al., 2016; Katila et al., 2012). Considering the above, we aim to answer the following research question in this study: “How are organizational absorptive capacity (ACAP) component elements embedded in strategic management processes of digital SMEs?”

In addition to the introduction, the structure of this paper comprises a theoretical background on ACAP and SME strategic management. We then connect these processes through an integrative theoretical framework. Next, we present the methodological procedures used to assess organizations in the field. Results and discussion sessions followed by implications and conclusions complete the article.

## **ABSORPTIVE CAPACITIES**

Although the term "absorptive capacity" had been used previously (Volberda et al., 2010), the contribution of Cohen and Levinthal (1990) is widely accepted as a seminal work on the subject. These authors define ACAP as the organizational ability to recognize the value of new external information, assimilate and exploit it for commercial purposes. They emphasize the importance of prior knowledge and prior investments in research and development (R&D) as essential background to ACAPs. Evaluation and utilization of outside knowledge is largely a function of prior knowledge. The authors also reinforce the relevance of individual absorptive capacity to forming ACAP at organizational level. In a complementary study, Zahra and George (2002) define ACAP as an organizational dynamic capability (Teece et al., 1997) and propose four dimensions as in the explicit phases of their model. For these authors, ACAP is a set of organizational routines and strategic processes, through which organizations acquire, assimilate, transform and exploit knowledge to produce organizational dynamic capability. Todorova and Durisin (2007) suggest a new definition and model with some important changes to Zahra and George's (2002) proposal. The authors redirect attention to the first skill proposed by Cohen and Levinthal (1990), which is the recognition of external information value for the organization. They also complement their understanding of the transformation phase, proposing this step as an alternative rather than subsequent to the assimilation phase.

In addition to the dimensions or sub-capacities already mentioned, ACAP component elements also include multi-level organizational antecedents (Jansen et al., 2005). Internal and external social linkages, knowledge coordination through cross-functional interfaces and participation in decision-making processes, as well as such specific routines as job rotation, are examples of other ACAP component elements (Gebauer et al., 2012; Van Den Bosch et al., 1999).

**ACAP has been used in conjunction with various fields of knowledge, leveraging its current widespread diffusion among scholars. Whatever differences there are among the main authors as to the precise and clear definitions of the construct and its dimensions or sub-capacities, such multidisciplinary applications of ACAP premises endorse the construct's resilience and reinforces its importance, both in academy and management.**

Considering knowledge management literature usually targets large companies with low applicability of the outcomes to SMEs (Cerchione et al., 2016), a literature review on strategic management in the context of SMEs, highlighting knowledge absorption practices and routines, is presented next.

## LITERATURE REVIEW: STRATEGIC MANAGEMENT AND ACAP IN SMES

Data were extracted from Clarivate Analytics Web of Science™ database in June, 2019, using the Boolean logic TS = ("strategic management" AND SME OR "small business" OR "medium business") to retrieve all documents presenting these specified expressions in title, abstract, author keywords and keyword plus™. With this procedure, we retrieved 187 documents in the first extraction. After an initial review of all titles and abstracts, focusing only on documents based on general themes related to strategic management (e.g.: knowledge, innovation, business model), we selected 52 documents as a first filter. After applying a second filter for business management documents published in journals with impact factor or SCOPUS *citescore* index greater than 1, we selected the final 15 articles in line with the objectives of this review.

After a comprehensive content review of the articles retrieved, we propose the following linking blocks between ACAP and strategic management for SMEs.

### *Knowledge absorption from inter-organizational partnerships*

SMEs benefit considerably from inter-organizational partnerships and more specifically from alliances, when expanding to international markets (Colombo et al., 2009). Among other benefits, these partnerships allow parties to share organizational knowledge and overcome resource constraints in terms of human capital (Ferreira and Franco, 2019). Nakos et al. (2014) build on strategic alliance and entrepreneurship literature to evaluate the impact of alliances with competitors and non-competitors on international SME performance. Engagement in foreign market alliances facilitates knowledge transfer and absorption between partners, since alliance participants share a common previous language and understanding of the business context and its critical resources (Ritala et al., 2008). This is in line with ACAP literature on previous related knowledge as an important antecedent to facilitate new knowledge absorption (Gebauer et al., 2012; Lane and Lubatkin, 1998). Benefits are multiple, including gaining knowledge of the specific foreign market helping the SME with institutional network contacts abroad (Sefiani et al., 2018). In summary, alliances are recognized as a relevant initiative to foster knowledge absorption and strategic benefits.

### *Innovation through customer relationships*

Building on extensive literature on strategic management underpinned by the resource-based theory (Grant, 1991; Peteraf, 1993), Rangone (1999) developed empirical research based on 14 case studies of SMEs in different industries, aiming to propose an approach to strategy analysis based on such a theory. Results obtained from case studies reveal three critical capabilities upon which SMEs base their strategic approach: innovation, production and market management capabilities. The framework proposed by the author on practices linked to innovation capability highlights customer relationship as having high strategic value for SMEs. This practice is especially important as a new knowledge source alone or as a trigger to search for valuable knowledge applied to new product development (Fletcher and Polychronakis, 2007; Rangone, 1999).

### *Dynamic capabilities nurturing learning*

Dynamic capabilities (DC) are currently widely discussed in strategic management and may be defined as an organization's ability to integrate, build and reconfigure internal and external resources (Teece et al., 1997). SME development of dynamic capabilities is the overall objective of Tallott and Hilliard's (2016) study. The authors undertook a qualitative study with longitudinal data collection to understand the development processes of DC in a specific organization. The implementation of practices and routines of a learning organization (Senge, 1990) is at the core of initiatives to build DC in the specific case study. Since ACAP is a dynamic capability (Zahra and George, 2002) linked with organizational learning (Cohen and Levinthal, 1990; Sun and Anderson, 2010), these initiatives may be

important elements in integrating ACAP dimensions in the context of SME strategic management processes.

*Social capital as a knowledge absorption enabler*

Social capital may be defined as the value embedded in the social relationships of individuals or groups (Gedajlovic et al., 2013). Social and relational capacities of SME top decision makers are required to manage and nurture external relationships over time, leveraging valuable external knowledge absorption (Santoro et al., 2019). Hernández-Carrión et al. (2017) evaluated the impact of social capital on SME economic performance. Authors group entrepreneurial relationship networks into four categories: personal, professional, associative and institutional. These four networks are sources of valuable knowledge to support the development of financial, technological, commercial and other relevant capabilities for SMEs. Social integration mechanisms for leveraging knowledge absorption in organizations is a common topic in ACAP literature (Gebauer et al., 2012; Todorova and Durisin, 2007; Yli-Renko et al., 2001; Zahra and George, 2002). Combining these references, social capital may be an important enabler for strategic valuable external knowledge absorption.

*Internal social networks fostering knowledge absorption*

Campbell and Park (2017) considered another perspective of social capital as a critical resource for SMEs. Key dimensions in their study include trust, homophily, reciprocity and shared vision as the main attributes for consideration to understand internal social capital impacts on SME performance. In their analysis, Tsai and Ghosal (1998) suggested that the creation of internal social capital eventually generates value in SMEs with each of the four dimensions, reinforcing the creation and development of the other dimensions. Social capital underpinned by quality of internal social interactions fosters an organization's knowledge absorption capabilities (Kusunoki et al., 1998). Against conventional beliefs regarding motivation factors as the primary enabler or restrictor of proper internal knowledge flow, Szulanski's (1996) findings show that relationship difficulties between the source and the recipient of the information is one of the major barriers to internal knowledge transfer and assimilation. This reinforces the need to investigate practices and routines associated with internal social network integration as a relevant component element of ACAP to leverage strategic value for SMEs.

*Leveraging previous knowledge to seize new opportunities*

Drawing on the knowledge-based theory (Grant, 1991), Kallmuenzer and Scholl-Grissemann (2017) developed a framework of antecedents aiming to evaluate the internalization of external knowledge through seizing technological opportunities and inter-organizational collaboration. Their findings showed previous internalized knowledge as having a positive impact on seizing external technological opportunities, confirming their argument that existing knowledge within organizations ultimately impacts SME financial performance. The importance of previous knowledge as an antecedent for effective knowledge absorption is at the core of seminal publications on ACAP (Lane and Lubatkin, 1998; Todorova and Durisin, 2007). Practices and routines associated with previous knowledge related to external technological opportunities and inter-organizational collaboration may be important elements integrating ACAP and strategic management for SMEs.

*Entrepreneurial orientation for external knowledge acquisition*

Entrepreneurial orientation (Covin and Lumpkin, 2011) as an antecedent for SME performance is included in 7 of the 15 articles retrieved for this review. Either as an independent or mediator variable, entrepreneurial orientation (EO) appears to be an important element for SMEs to support their strategic planning. Mediated by experiential learning and networking capability, Karami and Tang (2019) suggest that EO combined practices and routines of experimentation, risk-taking, interaction with context and collaborative decision making, among others, lead to international SME performance. Similarly, Rua et al. (2018) suggest that combined EO behavior and knowledge absorption capabilities may lead to export performance for SMEs. Jin et al. (2017) also examined the independent roles of each EO dimension – proactiveness, innovativeness and risk-taking – in international performance. As SME owners or top management deal relentlessly with business in

scarce resource contexts, recognition of threats and opportunities of new knowledge resulting from EO behavior seems to yield a relevant bond between SME ACAP practices and strategic management initiatives.

## INTEGRATIVE FRAMEWORK

For the purpose of this research, ACAP component elements encompass all aspects related to ACAP dynamics in an organization. Integration of these component elements with relevant strategic management imperatives for SMEs is the base of our proposed integrative framework to investigate results in the field.

Figure 1 summarizes this literature review, highlighting relevant links of SME strategic management elements to absorptive capacity literature.

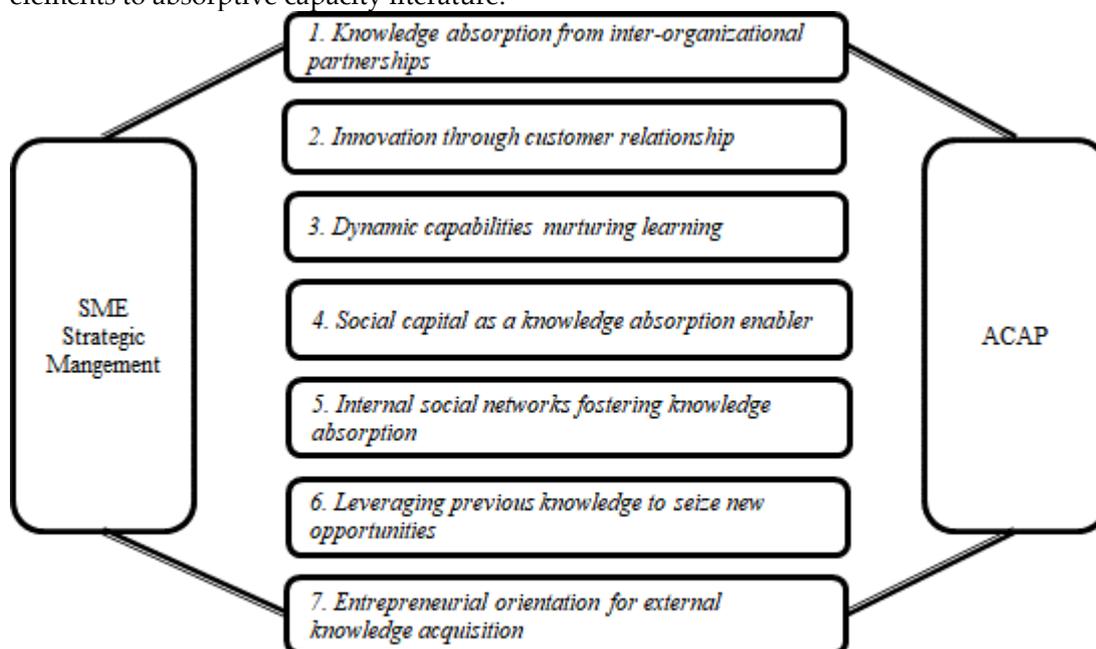


Figure 1. Relevant links between SMEs strategic management and ACAP

## METHODOLOGICAL PROCEDURES

ACAPs are complex and dependent upon the context in which they are observed. They are firm specific and potential sources of sustainable competitive advantage (Argyres and Zenger, 2012). To achieve research objectives, we chose a qualitative, exploratory methodology as an appropriate approach when the boundaries between the phenomenon (ACAP) and the context are not well defined (Yin, 2003).

We conducted 2 exploratory studies to evaluate the proposed model. The following criteria

were used to define and select these two cases: one small and one medium organization; their value proposition includes digital products, services or solutions.

#### *Case descriptions*

Company A is a medium-sized technology solutions organization, in operation for over 25 years. The company portfolio includes high-tech products, services and solutions for aerospace and defense, targeting worldwide markets. Gross revenue is above US\$15M (fifteen million dollars) per year, with about 250 employees, including shop-floor industrial workers.

Company B is a small-sized technology products organization, in operation for over 20 years. The company portfolio includes digital broadcasting equipment with proprietary software embedded. Gross revenue is below US\$400K (four hundred thousand dollars) per year with about 70 employees, including shop-floor industrial workers.

See table 1 for individual interviewee job roles.

| Company A |  | Company B |   |
|-----------|--|-----------|---|
| Reference | Job role   | Reference | Job role                                      |
| A1        | Executive VP of Operations                       | B1        | Owner and Managing Partner                    |
| A2        | Director of Research, Development and Innovation | B2        | Sales Manager                                 |
| A3        | Executive VP of Sales                            | B3        | Finance and Administration Manager            |
| A4        | Technical Leader of Research and Development     | B4        | Engineering, Development and Research Manager |
|           |  | B5        | Production Manager                            |
|           |  | B6        | Customer Services Manager                     |

Table 1. *Interviewees list*

## RESULTS ANALYSIS AND DISCUSSION

In this section we present the research results. We also examine how interviewee responses may answer our research question for each of the proposed integration blocks between the ACAP and strategic management imperatives of SMEs.

#### *Knowledge absorption from inter-organizational partnerships*

Company A's value proposition is to provide excellence as a technology integrator. According to respondent A1, technology dynamics mean that project requirements and resource allocation are not stable. This means experimentation and inter-organizational partnerships for risk and knowledge sharing are top priorities. As an integrator of multidisciplinary projects, knowledge sharing between partners is crucial to deliver project results. According to respondent A2, inter-organizational networks are embedded in their business model. This includes alliances with other companies in the

aerospace sector, with a larger company at the center of the network. Scarce resources make it difficult for SMEs to innovate alone in a dynamic environment. Respondent A2 went further by mentioning that even large companies are failing to do so. Respondent A2 also mentioned a recursive cycle of knowledge absorption originating in these network activities. Each individual recursive cycle feeds other partner cycles in a healthy, productive symbiosis. Such inter-organizational networks seem to be at the core of knowledge absorption practices and routines embedded in company A's strategic initiatives.

Two main initiatives are at the core of Company B's strategic knowledge absorption initiatives. One is through co-development of a product with a university to fulfill a specific market demand. The other is an important initiative with an international competitor. Despite the risk of partner opportunism, product complementarity supported company B's product portfolio update in a typical co-competition (Ritala, 2012) type of partnership.

*Innovation through customer relationships*

Customer engagement is deeply embedded in company A's management process, including local, regional and international formal and informal contacts. The business development team is formally assigned to continuously assess new customer needs in the aerospace and defense sectors. According to respondent A3, those professionals must raise such opportunities in formal internal meetings, start a project related to such opportunity and be accountable for follow-up knowledge assimilation and potential exploitation.

Respondent B2, a sales manager, mentioned that the company's ultimate focus is on market demand opportunities and quick responses to these demands. Such responses include hardware and software solutions, mostly developed internally, according to respondent B4. Respondent B2 mentioned daily contacts with market influencers who have direct contacts with final customers as the source of valuable knowledge recognition for company B.

*Dynamic capabilities nurturing learning*

Company A's concept of value, according to respondent A1, is switching from products and services to customer experiences. This is one of the triggers for continuous initiative changes in the company. Company A employees recognize their lack of capacity to influence the dynamics of technological challenges nowadays. Uncertainty is the new pattern, and according to respondent A1,

they must keep looking for business opportunities and new valuable knowledge, even if they do not know exactly what they are searching for.

Classic strategic planning approaches rarely apply to the reality of company A. There is no control of markets or knowledge. An internal dynamic approach to seize such opportunities and reconfigure resources to exploit them lies at the core of their strategic management process. According to respondent A1, their job is to identify technology trends, assess internal knowledge gaps, acquire and assimilate lacking resources and, more importantly, change quickly. In order to operationalize this, company A has gatekeepers responsible for screening worldwide markets, looking for new valuable knowledge and technology trends. The competences of these professionals are not limited to high technical expertise but also include market orientation. Additionally, they are capable of matching potential new external knowledge with current organizational knowledge.

Due to low product innovation in company B, and fierce competition, respondent B2 mentioned a daily routine they perform to learn directly from their competitors. Since most broadcasting product specifications are well known, competitor websites are an excellent source of information. Although such imitation practices reveal their continuous intent to keep updated regarding market demand requirements, there are no strong indications of dynamic capabilities pervading company B. Nonetheless, these practices release learning processes that eventually trigger the transformation of available resources to help generate innovation.

*Social capital as a knowledge absorption enabler*

According to respondent A1, instead of managing projects using traditional supplier-customer logic, a project team includes all project stakeholders, from partners to final customers. Serial step-by-step project management no longer applies to Company A. This means social relationship attributes are at the core of proper knowledge transfer practice. There are incentive initiatives for participants to talk and interact as a paramount condition for project success.

Respondent B2 mentioned the relevance of influencers with direct contacts with final customers. These professionals are experts in broadcast equipment and solutions for the customer they provide with services. The closer and more open the relationship with these influencers is, the more opportunities there are to absorb valuable knowledge and the quicker and more effective the response of company B to market demands is.

*Internal social networks fostering knowledge absorption*

According to respondent A1, management continuously pursue the formation of internal innovation networks. Attaining an environment open to valuable new ideas is the main objective of such networks. In addition to the already mentioned gatekeeper role, company A also has the so-called knowledge acquisition and development group network. According to respondent A2, this network also includes external members from suppliers and local universities. Altogether, they belong to the formal research, development and innovation area.

The main cultural aspect observed in company B was a common sense of trust in the company owners, which minimizes conflicts, enhances the organizational climate and generates an environment open to new ideas and innovation. Despite the lack of formal internal networks or specific practices associated with team building, such cultural aspects seem sufficient for a common orientation of company personal. According to most respondents, this sense of trust plays an important role in Company B's employee interaction at work.

*Leveraging previous knowledge to seize new opportunities*

Company A was established with deep engineering and aerospace market knowledge. From this point on, the company path has always been related to this initial knowledge. Since the company business model implies delivery of customer solutions as a package instead of an engineering hourly rate, knowledge absorption and retention is imperative. This company's practice is to develop newly graduated engineers instead of recruiting experienced ones. New engineers are usually allocated to multi-organizational innovation groups to speed up their individual learning and assimilate company innovation practices.

Company B's owners are electronic engineers who started operations immediately after graduating. All ensuing development was based on this initial knowledge. Despite operating for more than 20 years, the owners still participate actively in product design. Respondent B1 states they are proud to call themselves "bench engineers". Employee retention is critical for company B. They therefore base their knowledge update practices on hiring recently graduated engineers and training them on the job.

*Entrepreneurial orientation for external knowledge acquisition*

Since its foundation, company A has targeted local and foreign markets for new opportunities and orientation for research and development initiatives. Adaptability was at the core of company initiatives from the very beginning of operations, due to a crisis period. Based on engineering projects, the organization's initial 10 years of operations comprised several examples of entrepreneurial adaptability. As a matter of survival, and to maintain the initial founding vision, apart from targeting aerospace and defense markets, they entered non-related markets with such diverse projects as improving bicycles, washing machines, pressure cookers and women's tampons.

Despite not considering themselves pioneers, respondent B1 was clear about their risk-taking approach to new opportunities. Proactive behavior may be observed in such specific daily practices as watching market movements assiduously. All in all, EO elements seem to be evident in company B as well, but more as a survival need than a support for initiatives. No matter what the reason for adopting such behavior is, overall EO behavior is an important indicator to support the design and implementation of specific practices and routines in their daily battle for knowledge acquisition, leveraging the efforts to add value to their products.

## IMPLICATIONS AND CONCLUSIONS

The main focus of this paper lies in the relevance of valuable knowledge absorption for strategic management processes in digital SMEs. Our intent is to comprehend how absorptive capacities are embedded in the strategic formulation of these digital SMEs. The literature review shows potential strategic initiatives where knowledge absorption capacities are integrated. Field results reveal relevant evidence for each linking block of the proposed framework.

These findings provide some theoretical and managerial implications. Firstly, the study adds to the literature on ACAP by tackling digital technology-based small and medium organizations. Although digital SMEs have overall limited capacity to access specific resources and greater difficulties to set the flows involving ACAP (Tzokas et al., 2015), there are still few studies dealing with ACAP for these specific organizations (Flatten et al., 2011). Secondly, the study contributes to the broad field of strategic management by focusing specifically on SMEs. Even though relevance for employment levels and complementarity of the value chain are acknowledged, there is still a lack of comprehensive studies on strategic management related to SMEs (Cerchione et al., 2016). Since knowledge absorption capacities are paramount for achieving competitive advantages and above average results (Cohen and Levinthal, 1990), the third implication relies on our proposed framework with linking blocks combining strategic management imperatives and ACAP component elements. This last implication has important managerial contributions, as it may serve as a potential orientation for digital SMEs in

their strategic endeavor to survive and thrive in dynamic markets.

This research is an on-going work and has some limitations. Although both companies are digital technology-based SMEs, company A is a medium company operating worldwide, while company B is a small company operating locally in a highly regulated environment. Based on our results, we acknowledge some minor adjustments might be effective in the framework. As an example, in the EO section, rather than reflecting on the behavior itself, the questions might focus on practices and on routines for validation purposes. Learning through the inter-organizational network partnership section should also be better explored, by adding straight questions on knowledge absorption from all kinds of network engagement. Blocks related to social capital could be combined in just one group for further examination. Although these points might pose limitations to this study, they also provide some valuable avenues for deeper investigation.

As digital technology-based SMEs struggle to survive and thrive in a global dynamic world, the more we investigate strategic management processes applied to their reality, the better we will be able to comprehend their importance to value chain complementarity. We chose ACAP embedded in strategic management processes. However, many fields of study may also support such debate. Entrepreneurship, open innovation, organizational learning, among others, might underpin the foundations for further, desirable investigation.

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# DIGITAL TRANSFORMATION IN SMES: A SYSTEMATIC REVIEW AND FUTURE DIRECTIONS

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## ABSTRACT

In the nowadays global economy, digital transformation is leading companies of all sizes to rethink their products, processes, and business models to meet changing society requirements. In this regard, research on digital transformation has gained great research interest from both scholars and practitioners.

However, to date, most of the research has been focused on studying such changes within the boundaries of large companies or high-tech start-ups. Thus, this paper is motivated by the necessity of providing a more profound understanding of the interplays existing between digital transformation processes in the context of small and medium-sized enterprises (SMEs).

To do so, a two-step structured literature review was conducted with the aim of systematizing and synthesizing current research on the topic and provide an avenue to drive future research. To do so, articles indexed in the timespan 2010-2019 on Scopus were submitted to bibliometric analysis, allowing us to synthesize and systematize current knowledge on the topic. Then, the articles published in journals ranked 2 or higher in the AJG2018 were selected for a content analysis. Interestingly, three major research streams emerged: (1) innovation, (2) information and knowledge management systems, and (3) decision making. Moreover, avenues for orienting future research agenda could be identified. These results highlighted the partial conceptualization of the phenomenon and were used as useful baseline to provide some insights about future research needs.

*Keywords: digitalization, small and medium-sized enterprises, SMEs, structured literature review, bibliometric analysis, innovation, information systems, knowledge management, decision making*

## INTRODUCTION

Digital transformation is nowadays influencing every type of business. Technologies such as internet of things (IoT), blockchain, and artificial intelligence (AI) are radically changing the rules of the game by requiring firms to face great challenges but also great opportunities (Bresciani *et al.*, 2018; De Bernardi *et al.*, 2019; Ferraris *et al.*, 2019; Scuotto *et al.*, 2016; Serravalle *et al.*, 2019). At first, the digital revolution

seemed to be the prerogative of large companies and start-ups from high-tech sectors. However, the increasing uncertainty and dynamism of business environments (Thrassou *et al.*, 2020), further triggered by the COVID-19 crisis, is also calling small- and medium-sized enterprises (SMEs) to advance their technological competencies (OECD, 2020). The development of ever more sophisticated and advanced information and communication technologies (ICTs) can, in fact, offer SMEs the opportunity to rethink product, processes, business models, and customer experiences to meet changing society requirements (Müller *et al.*, 2018; Santoro *et al.*, 2018a; Scuotto *et al.*, 2017a; Scuotto *et al.*, 2017b). Digital transformation, also recently known under the label “Fourth Industrial Revolution” (Fakhar Manesh *et al.*, 2020), has become a topic of interest in many research areas, such as computer science, engineering, and material science. However, the pervasiveness of new technologies within our businesses and our society in its entirety is also attracting the attention of managerial studies. Indeed, digital transformation is raising 360-degree reflections on the possible organizational and managerial implications that derive from technological progress in SMEs. In fact, it is not technologies that create value in themselves (Chesbrough, 2007) but their integration within a clear corporate strategic vision (Saebi and Foss, 2015), where the term transformation refers to the organization and to its structure, culture, and capabilities.

Despite the variety of digital technologies, their pervasiveness, and the various fields in which digitalization can be leveraged in SMEs, no comprehensive studies have addressed the impact of digitalization in SMEs. In this vein, the aim of this study is to systematize the scientific literature published to date on this topic, shedding more light on what we know, what we don't know, and what we need to know about digitalization in the context of SMEs. With this purpose, we developed a structured literature review (SLR) that followed a three-phase design research. As a first step, studies indexed on Scopus were submitted to a bibliometric analysis for capturing trends and performances of scientific publications. Our findings show that research investigating the interplays existing between digitalization and SMEs is emerging as a globally relevant topic, involving both emerging and advanced countries, but is still fragmented and undertheorized, requiring more systematization studies. As a second step, we developed a content analysis to individuate the main classes of clusters in the leading academic literature on digitalization in SMEs. In this way, three main thematic clusters were identified as follows: (i) innovation; (ii) information and knowledge management systems; and (iii) decision-making. Furthermore, the results enabled us to individuate the topics which can drive future research agenda.

The remainder of this paper is structured as follows. In the second section we describe the structured review methodology and data collection process. In the third section we provide a descriptive analysis

of the findings. In the fourth section we present the findings of our content analysis. In the last section we provide avenues for future research and both theoretical and practical implications.

## METHODOLOGY

In this article, a SLR was performed for investigating relevant publications related to digitalization and SMEs. To do so, both quantitative and qualitative analyses were performed. So, in the first phase, a bibliometric analysis was conducted for evaluating scientific publications' trends and relevance through statistical techniques. Articles, journals, and authors represented the main unit of analysis of this phase (Thelwall, 2008; Massaro *et al.*, 2016). This kind of analysis represents a well-established method for studying science and evaluating scientific publications published in a specific research area and period of time (e.g., Cuccurullo *et al.*, 2016; Diem and Wolter 2013). In this study, the bibliometric analysis was performed using the Bibliometrix package (Aria and Cuccurullo, 2017), developed to run into RStudio (RStudio Team, 2016), which is one of the most used software by researchers and analytical practitioners to conduct statistical analysis. Secondly, papers were qualitatively analyzed for identifying primary research areas that have been investigated by scholars to date. In this way, also the gaps existing in the literature were identified and possible future research lines provided.

### *Research questions formulation*

According to Nguyen *et al.*, (2018), a successful SLR starts posing a clear research question. Following Vrontis and Christofi (2019), in this study, the research questions were settled through dialogue between authors and by taking the opinions of academic and industry experts. Since the aim of this study is to analyze the interplay existing between small and medium enterprises and digitalization, the research questions were posed as follows:

RQ1. "How is the business and management literature investigating the digital transformation of SMEs developing?"

RQ2. "How does the business and management literature address the dramatic changes occurring in reason of the digital transformation?"

RQ3. "What could be possible emerging topics in the future?"

### *Data search*

The first step of a SLR is to collect the publications that will be processed for obtaining the necessary metadata (Carvalho *et al.*, 2013). Consistently with other studies addressing digitalization in social sciences (Galati and Bigliardi, 2019; Mariani and Borghi, 2019), in this paper the research was conducted using one database: Elsevier's Scopus. This choice is suggested for avoiding homogenization issues that would emerge extracting data from different databases (Waltman, 2016). Together with

Clarivate Analytics' Web of Science (WoS), Scopus is considered one of the most reliable and comprehensive scientific databases in social sciences (Mongeon and Paul-Hus, 2016), with more than 20,000 active titles (i.e., peer-reviewed journals, books, and conference proceedings) and around 69 million records. However, to corroborate the choice of using only Scopus, the same set of keywords was also used to search into WoS, resulting in a consistently lower list of publications.

To collect data from Scopus, the literature related to the investigated topic was analyzed for selecting relevant keywords. Following Scopus' syntax, the initial search string was set for searching into the title, abstract, keyword fields of publications as follows:

*TITLE-ABS-KEY ("Cloud computing" OR "Machine learning" OR "Augmented reality" OR "Virtual reality" OR "Artificial intelligence" OR "Internet of things" OR "Fourth Industrial Revolution\*" OR "Big data" OR "Cybersecurity" OR "Blockchain" OR "Digitalis\*" OR "Digitaliz\*") AND TITLE-ABS-KEY (SME\* OR "Small and medium-sized enterpris\*" OR "Small and medium sized enterpris\*" OR "small compan\*" OR "small manufactur\*" OR "small firm\*" OR "medium firm\*" OR "medium compan\*" OR "small enterpr\*" OR "Medium enterpr\*")*

Thus, Boolean operator "OR" was used to combine keywords related to the same group (i.e., digitalization and SMEs) and the Boolean operator "AND" for combining the two search strings. Moreover, wildcards were set to capture different combinations of keywords.

#### *Data collection*

The search was conducted in February 2020 and included all documents published between 2010 and 2019, resulting in 2,693 results. The restriction in the timespan of publications was posed for investigating the last ten years of studies addressing the digitalization phenomenon and excluding publications released in 2020. This is a common practice in bibliometric studies to limit comparability biases during the performance evaluation of publications that could not benefit from an adequate time to be read and cited by other scholars (Massaro *et al.*, 2016).

Secondly, the sample was restricted to consider only: (i) English-written documents due to limitations of researchers (Vrontis and Christofi, 2019); (ii) peer-reviewed articles for ensuring a higher quality of data; and (iii) papers published within the business and management domains for answering the research questions of this study and excluding issues in comparing the metrics of scholars or journals of different research fields. A final record of 197 results was submitted to bibliometric analysis.

Finally, studies in peer-reviewed journals ranked two or higher in the AJG 2018 published by the Chartered Association of Business Schools were considered for content analysis. Fully aware that this could have excluded some relevant articles, the authors posed this restriction to consider only top-tier academic journals and peer-reviewed articles. This ensured a higher quality of retrieved data and the

identification of relevant research trends, as can be retrieved in other studies published in top-ranked business journals (e.g., Gaviria-Marin *et al.*, 2019; Vrontis and Christofi, 2019; Franco-Santos and Otley, 2018). This resulted in 56 documents, as shown in Figure 1.

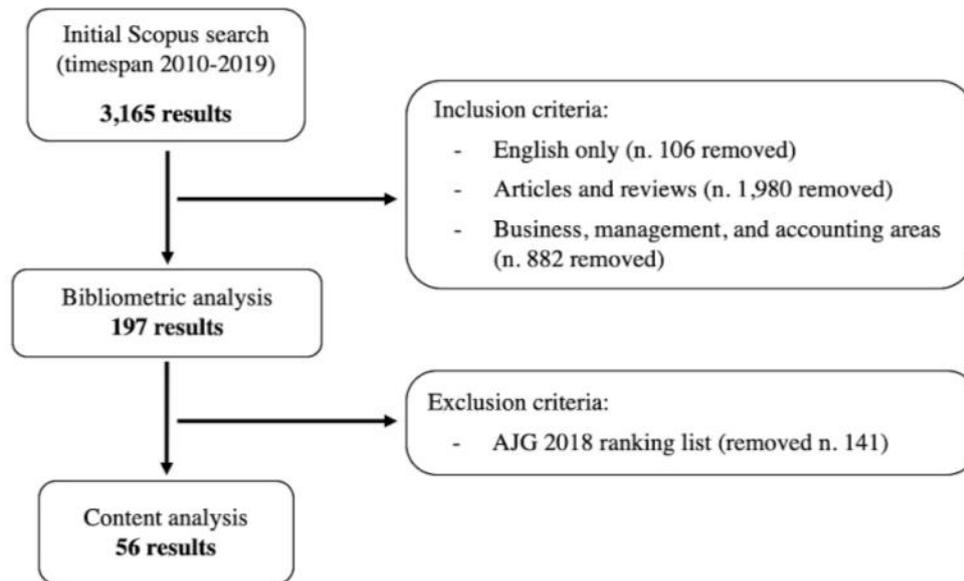


Figure 1. *The data collection and analysis process.*

## BIBLIOMETRIC ANALYSIS

This section explores the performance analysis of publications, countries, Journals, and authors leveraging both productivity (e.g., total publications, geographic distribution) and impact (e.g., total citations, h-index) measures. A comprehensive picture of the trends characterizing the scientific publications on digitalization and SMEs from 2010 to 2019 is offered for answering RQ1 of this study.

### *Articles' evolution and geographic distribution*

Articles on digitalization and SMEs have been published since the early '90s, but publications started to increase from 2010, the cutting point set for data extraction (Figure 2). This trend was exacerbated by the introduction of the "Industrie 4.0" program in Germany in 2011, followed by other European countries in the next years, and confirms that the topic is relatively recent (Tirabeni *et al.*, 2019). It can be noted how the annual growth rate is around 55%, demonstrating an increasing interest of scholars on the subject.

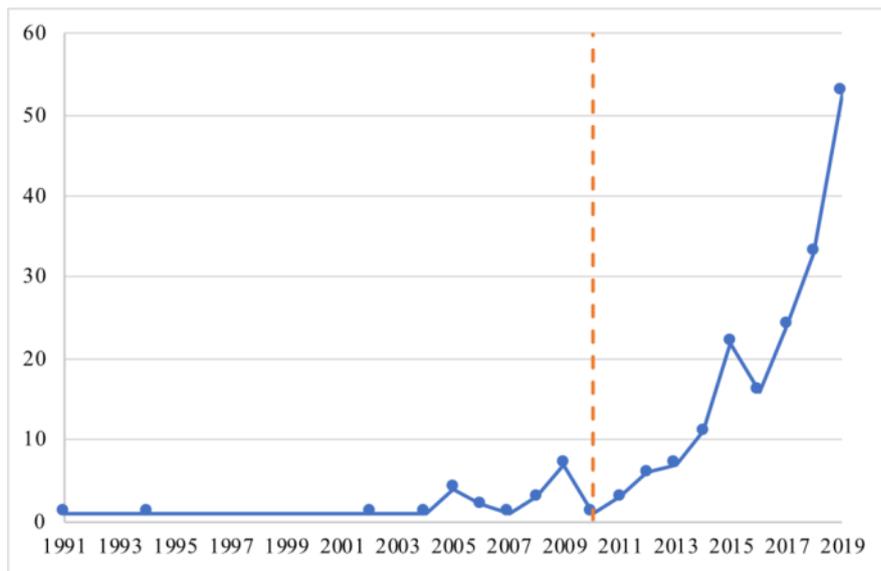


Figure 2. *Publications trend in the timeframe 2010-2019.*

For what regards the geographic distribution of articles, Figure X reveals that India is the country with the highest number of articles (49 results). India launched its Industry 4.0 program, “Make in India”, in 2015 together with a governmental plan, called “Digital India”, to transform the country into a digitally empowered economy. Moreover, SMEs represent the backbone of its economy in terms of productivity, trade, and employment (Government of India, 2020). respectively. Although the resulting documents in some countries are low, Figure 3 also allows assuming that the topic is globally relevant, involving both advanced and developing countries.

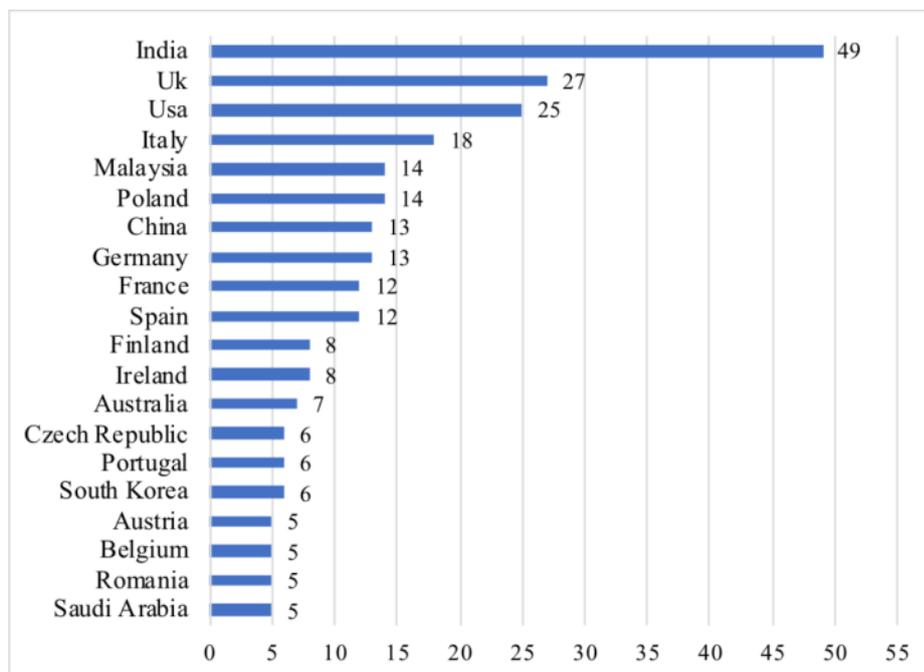


Figure 3. *Number of articles per country.*

Considering the citation trend of different countries (Figure 4), it could be easily noticed that countries rank very differently compared to productivity. So, the UK goes up from second place to first place, distancing other countries, while India goes down to sixth place. In this regard, together with China and the USA, European countries show a higher impact than emerging countries.

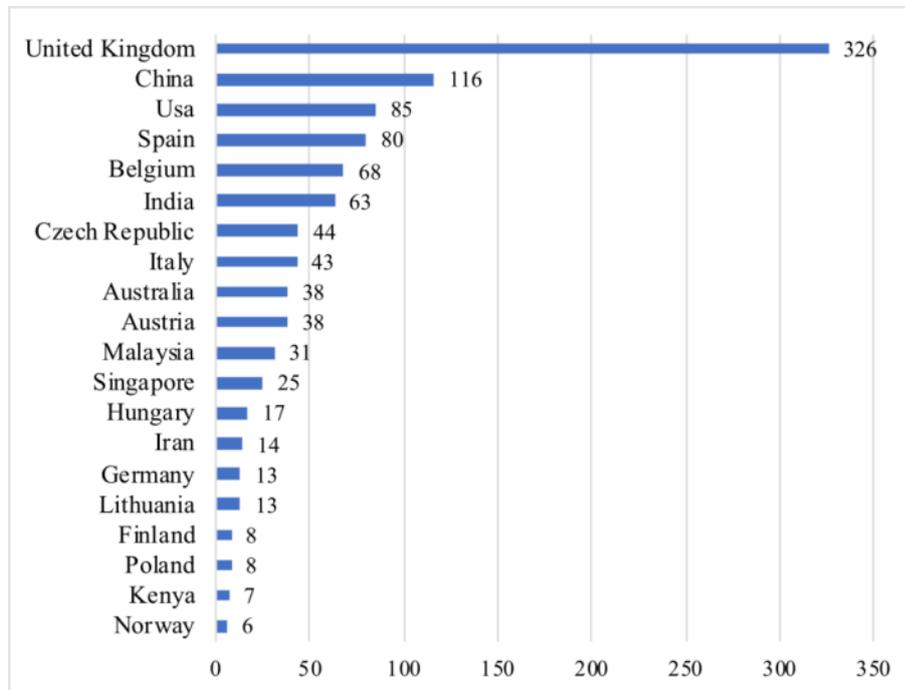


Figure 4. Number of citations per country.

#### *Journals*

Regarding the journals, the top 10 in terms of the number of published articles are presented in Table 1. Journals that publish about internationalization are the most productive in terms of digital transformation and SMEs, ranking among the top three journals. Interestingly, other journals among the most productive on the topic are focused journals, publishing about innovation, information management, decision making and decision systems. However, it is worth highlighting that only 37 journals out of 118 have published more than one article related to the theme. The rest of the journals published only one article, which in some cases was highly cited (e.g., Journal of Industrial Engineering and Management with 96 citations, Electronic Markets with 64 citations, Information Systems Research with 47 citations). This can be easily noticed from Table 2, in which the top 10 journals in terms of the number of citations are presented. These results are also useful to determine the most relevant authors and papers and confirm the lack of maturity and high fragmentation of this research field, as well as the need for systematization works.

| #  | Journal  | N. of articles | Total cit. |
|----|--|----------------|------------|
| 1  | International Journal of Business Information Systems      | 11             | 68         |
| 2  | International Journal of Production Research               | 5              | 186        |
| 3  | International Journal of Recent Technology and Engineering | 5              | 3          |
| 4  | Decision Support Systems                                   | 3              | 56         |
| 5  | EAM: Economie A Management                                 | 3              | 38         |
| 6  | Journal of Decision Systems                                | 3              | 24         |
| 7  | Lecture Notes in Business Information Processing           | 3              | 10         |
| 8  | Quality - Access to Success                                | 3              | 0          |
| 9  | Technological Forecasting and Social Change                | 3              | 31         |
| 10 | Journal of Enterprise Information Management               | 2              | 271        |

Table 1. Top 10 journals per number of published articles.

| #  | Source  | N. of articles | Total cit. |
|----|---|----------------|------------|
| 1  | Journal of Enterprise Information Management                        | 2              | 271        |
| 2  | International Journal of Production Research                        | 5              | 186        |
| 3  | Journal of Industrial Engineering and Management                    | 1              | 96         |
| 4  | Creativity and Innovation Management                                | 2              | 93         |
| 5  | International Journal of Business Information Systems               | 11             | 68         |
| 6  | Electronic Markets  | 1              | 64         |
| 7  | Knowledge-Based Systems   | 2              | 62         |
| 8  | Decision Support Systems  | 3              | 56         |
| 9  | Information Systems Research  | 1              | 47         |
| 10 | Transportation Research Part E: Logistics and Transportation Review | 2              | 46         |

Table 2. Top 10 journals per number of total citations.

### Authors

For identifying the most influential authors that have studied digital transformation and SMEs, their most cited publications in the dataset were considered in this study. Indeed, total citations are considered a proper indicator for synthesizing the impact of a publication within the scientific community (Merigó *et al.*, 2015). Table 3 depicts the top ten articles for total citations, whilst Table 4 shows the top ten on the basis of citations received per year (TCpY), considering publication date. It can

be noted that the article from Alshamaila *et al.*, (2013) is the most cited, with 271 citations. The article shows how cloud computing can boost technological, organizational, and environmental aspects and how SMEs' strategies can be modeled to adopt such technologies. Following Alshamaila and colleagues, two literature reviews from Moeuf *et al.*, (2018) and from Sommer (2015) for analyzing the implications of Industry 4.0 on SMEs can be found, respectively, accounting 129 and 96 total citations. Then, there is a quantitative analysis from Scuotto *et al.*, (2017a), investigating the role of ICTs and big data in intra- and inter-organizational ties and the consequent effects on SMEs' innovation performance (73 citations). Then, a qualitative analysis from Trigueros-Preciado *et al.*, (2013), investigating which barriers hinder the adoption of cloud computing technologies in SMEs (with 64 citations), can be found.

| #  | Author(s)                 | Title  | Journal   | Year | Total cit. | TCpY  |
|----|---------------------------|--|---|------|------------|-------|
| 1  | Alshamaila et al.         | Cloud computing adoption by SMEs in the north east of England: a multi-perspective framework                           | Journal of Enterprise Information Management                                      | 2013 | 271        | 33.88 |
| 2  | Moeuf et al.              | The industrial management of SMEs in the era of Industry 4.0   | International Journal of Production Research                                      | 2018 | 129        | 43    |
| 3  | Sommer                    | Industrial revolution - Industry 4.0: are German manufacturing SMEs the first victims of this revolution?              | Journal of Industrial Engineering and Management                                  | 2015 | 96         | 16    |
| 4  | Scuotto et al.            | Shifting intra- and inter-organizational innovation processes towards digital business: an empirical analysis of SMEs  | Creativity and Innovation Management  | 2017 | 73         | 18.25 |
| 5  | Trigueros-Preciado et al. | Cloud computing in industrial SMEs: identification of the barriers to its adoption and effects of its application      | Electronic Markets  | 2013 | 64         | 8     |
| 6  | Chen and Wu               | The impact and implications of on-demand services on market structure  | Information Systems Research  | 2013 | 47         | 5.88  |
| 7  | Dai et al.                | Comment and improvement on "a new fruit fly optimization algorithm: taking the financial distress model as an example" | Knowledge-Based Systems   | 2014 | 40         | 5.71  |
| 8  | Ross and Blumenstein      | Cloud computing as a facilitator of SME entrepreneurship   | Technology Analysis & Strategic Management  | 2015 | 38         | 6.33  |
| 9  | Müller and Voigt          | Sustainable industrial value creation in SMEs: a comparison between Industry 4.0 and Made in China 2025                | International Journal of Precision Engineering and Manufacturing-Green Technology | 2018 | 38         | 12.67 |
| 10 | Marten et al.             | Mining massive fine-grained behavior data to improve predictive analytics  | MIS Quarterly   | 2016 | 35         | 7     |

Table 3. Top 10 articles per number of total citations.

| #  | Author(s)                 | Title  | Journal   | Year             | Total cit. | TCpY  |
|----|---------------------------|--|---|------------------|------------|-------|
| 1  | Moeuf et al.              | The industrial management of SMEs in the era of Industry 4.0   | International Journal of Production Research                                      | 2018             | 129        | 43    |
| 2  | Alshamaila et al.         | Cloud computing adoption by SMEs in the north east of England: a multi-perspective framework                                 | Journal of Enterprise Information Management                                      | 2013             | 271        | 33.88 |
| 3  | Scuotto et al.            | Shifting intra- and inter-organizational innovation processes towards digital business: an empirical analysis of SMEs        | Creativity and Innovation Management  | 2017             | 73         | 18.25 |
| 4  | Sommer                    | Industrial revolution - industry 4.0: are German manufacturing SMEs the first victims of this revolution?                    | Journal of Industrial Engineering and Management                                  | 2015             | 96         | 16    |
| 5  | Muller and Voigt          | Sustainable industrial value creation in SMEs: a comparison between Industry 4.0 and Made in China 2025                      | International Journal of Precision Engineering and Manufacturing-Green Technology | 2018             | 38         | 12.67 |
| 6  | Ivanova et al.            | Economic policy for country's digitalization: a case study   | Entrepreneurship and Sustainability Issues  | 2019             | 19         | 9.5   |
| 7  | Ferraris et al.           | Big data analytics capabilities and knowledge management: impact on firm performance   | Management Decision   | 2019             | 18         | 9     |
| 8  | Horváth and Szabó         | Driving forces and barriers of Industry 4.0: do multinational and small and medium-sized companies have equal opportunities? | Technological Forecasting and Social Change                                       | 2019             | 17         | 8.5   |
| 9  | Trigueros-Preciado et al. | Cloud computing in industrial SMEs: identification of the barriers to its adoption and effects of its application            | Electronic Markets  | 2013             | 64         | 8     |
| 10 | Bouwman et al.            | The impact of digitalization on business models  | Digital Regulation and Governance   | Policy, and 2018 | 24         | 8     |

Table 4. Top 10 articles per number of total citations per year (TCpY).

## CONTENT ANALYSIS

In this section the results of the content analysis are discussed, providing an answer to RQ2 of this study. The analysis was conducted on the 56 publications, resulting from having considered only articles published in journals ranked 2 or higher in the AJG2018. In this way, the most relevant research trends could be identified and clustered. Three clusters emerged as follows:

- Research Area 1: innovation
- Research Area 2: information and knowledge management systems
- Research Area 3: decision making

### *Innovation*

Innovation is not only driven by technology. To successfully turn technologies into innovation, SMEs need to screen their market, have a clear idea of their business model, and adapt the organizational culture and structure. Digital technologies, if well managed, can lead to different innovation outcomes such as product innovation, process innovation, service innovation, marketing innovation, organizational innovation, strategic innovation, and so forth (Gupta *et al.*, 2007). In our sample, most of the papers highlight how digitalization can enable collaboration, both with customers (Goduscheit and Faullant, 2018; Shamsuzzoha *et al.*, 2016) and other organizations (Del Vecchio *et al.*, 2018; Scuotto *et al.*, 2017a). More specifically, digitalization can allow SMEs to be part of an ecosystem when taking advantage of collaboration with other companies, universities, government, and customers (Bogers *et al.*, 2018; Enkel *et al.*, 2020; Radziwon and Bogers, 2019; De Bernardi *et al.*, 2020). In this regard, according to Del Vecchio *et al.*, (2018), SMEs can tackle more effectively some challenges by leveraging big data for open innovation strategies. For instance, they could overcome their vulnerability when trading conditions change and the economy takes a turn for the worse. More specifically, Del Vecchio *et al.*, (2018) individuate three ways of creating new opportunities to sustain an open innovation strategy: the creation of a new open business model, the spin-out asset and the secondary markets, and a process of organizational change. The potential of big data was also recognized by Goduscheit and Faullant (2018). In this case, they point that big data generated internally within the focal company in combination can enhance the innovativeness of the service offered to the customers. However, they also recognize that digitalization must be combined with an efficient mobilization of internal resources and external resources in collaboration with other organizations. Shamsuzzoha *et al.*, (2016), instead, argue that web technologies and the IoT can enable collaboration among SMEs for customizing products and improving product innovation. In a similar vein, Scuotto *et al.*, (2017a) highlight how advances in information and communication technology lead SMEs to achieve better performance in terms of exploiting both internal and external knowledge to improve innovation processes in generating new products and/or services. However, some studies also reveal that SMEs have more difficulties than large companies in leveraging technological innovation. For instance, Clohessy and Acton (2019), adopting an innovation theory perspective, point out that top management support and organizational readiness enable blockchain adoption, and large companies are more likely to adopt blockchain than SMEs.

### *Information and knowledge management systems*

SMEs tend to be less structured than large companies. They often do not need advanced information systems (ISs) and knowledge management systems (KMSs) to turn information in knowledge and manage their activities. However, the increasing uncertainty and dynamism of competitive landscapes

are pushing companies to accelerate their innovation paths and to process a greater amount of data (Santoro *et al.*, 2019). This is not always easy to be managed since the increase of unstructured and simultaneous data and information may reflect negatively in organizations by congesting the information systems (Fakhar Manesh *et al.*, 2020). For this reason, in order to benefit effectively from digital transformation, organizations should improve their KMSs so as to scan and detect meaningful pieces of information and develop sophisticated and valuable uses of new knowledge (O'Connor and Kelly, 2017). In our sample, we have individuated two main streams of research addressing the topic of IS and KMSs in the digital transformation domain. A first body of literature focuses on analyzing the relationship between ISs and KMSs triggered by digital transformation and their impact on SME performance. Most of these studies are quantitative in nature. According to Ferraris *et al.*, (2019), for instance, SMEs developing more big data analytics capabilities than others are likely to increase their performance, and this relationship is positively amplified by KM orientation. A second stream of research tries to investigate deeper through both qualitative and quantitative studies what are the difficulties SMEs face when adopting dealing with a large amount of data and information and complex ISs and KMSs. Tvrdíková (2016), for instance, highlights how important are ICTs to process a huge amount of data. She points out that SMEs often use only personal IT and communication tools. Moreover, SMEs still suffer from lack of resources for investing in IT development, as well as a lack of awareness of the possibilities to buy quality IT at a lower cost. Among the technologies that are more relevant in our sample to develop successful ISs and KMSs, we have individuated machine learning (Delen *et al.*, 2013), big data analytics (Ferraris *et al.*, 2019), and cloud computing (Kumar *et al.*, 2017).

#### *Decision making*

The hyper-connected, dynamic, and complex context in which organizations operate nowadays requires them to limit as much as possible delays in decision-making processes. However, generally speaking, decision-making processes are unformalized in SMEs due to flat hierarchies (Salles, 2006). So, it happens that decision-makers have responsibilities at different levels and with different implications, dealing with both strategical and operational tasks in the absence of codified (Lect and Ogarcă, 2010). These characteristics result in large companies acting more driven by rational processes in comparison to SMEs, where inspirational decisions usually overwhelm rational ones. This implies that SMEs are a perfect setting in which investigating decision-making issues (Hauser *et al.*, 2019). Some studies concentrated on the internal environment in which decision-making processes occur, analyzing to what extent humans (Subramania and Khare, 2011), ISs (Borade and Sweeney 2015; Masclé and Gosse, 2014), or KMSs (Li *et al.*, 2016) should be involved and/or leveraged in these activities for enhancing SMEs' performances. Differently, other studies considered more the external environment. In this vein, Niu *et al.*, (2012 investigated which attributes must be taken into account

when selecting a partner to collaborate with, concluding that time, cost, quality, reputation, and risk are the most relevant. In the context of collaborative network, instead, Lin *et al.*, (2012) provided a conceptual model for supporting efficient conducts of SMEs' decision makers. In this way, they demonstrated how to leverage full benefits from participating in the network while attaining its strategic goals. Similarly, Renna (2013) proposed an interesting model for supporting rational decisions and simulations in the context of dynamic collaborative networks. So, he proposed a practical tool for helping SMEs' decision makers in deciding when the participation in such networks can be beneficial (or not) for the company.

Finally, a more recent study, investigated the role that decision support systems can have into empowering environmental management ISs to support for sustainability decisions and a cleaner production (Renatus and Geldermann, 2016). Indeed, SMEs often suffer from underemployment nor have the financial or organizational resources to deal with environmental matters, which are set aside to focus on more compelling affairs.

## CONCLUSION

### *Implications and future avenues for research*

SMEs are different from large companies (Bianchi *et al.*, 2018; Santoro *et al.*, 2018b), and this is also reflected in their digital transformation paths. Therefore, there is a need to develop comprehensive studies that can analyze the phenomenon. The main results of our study revealed that the adoption of new technologies had encouraged innovative paths to achieve product, process, and service innovation (Goduscheit and Faillant, 2018; Scuotto *et al.*, 2017a; Shamsuzzoha *et al.*, 2016). Few studies, instead, have focused on how digital transformation can influence the business models of a company (Rachinger *et al.*, 2019) and how it can stimulate innovations with social and environmental impact (De Bernardi *et al.*, 2020; Tirabeni *et al.*, 2019). The content analysis also revealed how digitalization can stimulate SMEs to undertake innovation paths based on inter-organizational collaboration with multiple stakeholders (Del Vecchio, 2018; Scuotto *et al.*, 2017a; Yaghmaie and Vanhaverbeke, 2019). From a practitioner perspective, our paper is useful as it offers an overview of the learnings on the interplays existing between digitalization and SMEs, providing some useful insights for what regards the three discussed research area, namely (i) innovation, (ii) information and knowledge management systems, and (iii) decision-making.

Furthermore, several theoretical implications can be derived. In this regard, answering RQ3, we have identified some research questions that can guide future studies on digital transformation and SMEs:

- How can the digital transformation contribute to the development of sustainable business models in SMEs?
- How do SMEs align their business model with technological advancements?
- Are SMEs able to take advantage from collaborative forms of innovation as well as large companies?

This work also highlights how important it is that SMEs be able to develop ISs and KMSs to process ever-increasing amounts of unstructured data. As argued by Ferraris *et al.*, (2019), for instance, KMSs can be seen as a moderator between big data analytics capabilities and organizational performance.

More effective management of information and related knowledge also have an impact on organizational decision-making processes, especially when dealing with collaborative networks (Renna, 2013; Scuotto *et al.*, 2017a; Forliano *et al.*, 2020) or sustainability driven shifts (Papadopoulos *et al.*, 2014; Renatus and Geldermann, 2016; Franceschelli *et al.*, 2018). Future avenues of research in the domain of ISs and KMSs are:

- How do SMEs integrate digital-based ISs and KMSs in their organizations after having traditionally relied on informal ways of processing and transferring information across the organization?
- Are complex ISs and KMSs always the right solution in SMEs?
- How are decision making processes affected by the introduction of formal and digital-based ISs and KMSs in SMEs?

The studies from our sample have highlighted how digitalization in SMEs can have a positive impact on various outcomes. However, undertaking digital transformation also requires certain resources, structures, and skills that SMEs do not always possess. Despite this awareness, few studies have developed in-depth analyses starting from these reflections. Based on these insights, we have developed some further future possible research questions:

- Which resource configurations SMEs need for effectively creating and capturing value from their technological development?
- What capabilities do SMEs need to develop to deal with digital transformation?
- What are the human skills required to cope effectively with technological development in SMEs?
- Finally, there is still paucity of studies addressing sustainability-related practices, especially regarding social sustainability, as well as the relationship existing between firm economical and non-economical performances and greenwashing practices (Bartolacci *et al.*, 2020). This leaves an opportunity to explore these issues from other management disciplines such as strategic, organizational, human resource perspectives.

*Limitations and further developments*

This research is not free from limitations, which pave the way for some interesting future studies. A first limitation can be identified in the choice to investigate only one database for conducting the data collection process. Scholars usually suggest to avoid consulting more than one database in conducting bibliometric analysis, due to homogenization issues. Second, in conducting the performance analysis of articles and authors, and journals, the most influential were considered in relation to the total amount of citations received or their h-index. So, younger scholars or more recent publications could have been penalized in this sense. However, the qualitative nature of the content analysis enabled to mitigate this bias, even if it was conducted considering only top-tier academic journals. This choice was made for capturing the debate of most relevant journals and scholars, but we are fully aware that some relevant articles could have unintentionally not been considered in this study. Finally, only articles considered in the timespan 2010-2019. However, due to the increasing trend of publications related to the topic, this would encourage observing the phenomenon over the years and dedicating future efforts of systematization.,

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**DIGITAL MARKETING AGENCIES' INTERNATIONALIZATION  
PATHWAYS: A VIEW OF AN INTERMEDIARY ON THE PROCESS AND  
INTERNATIONALIZATION BARRIERS**

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**ABSTRACT**

Business internationalization is usually time-consuming process that requires a significant amount of resources. Traditional theories describe internationalization as a process where companies slowly expand their operations to the "closest" markets, gradually increasing their internationalization commitment over time. With the deployment of new business models, usually backed by development and implementation of various Internet based technologies, a new type of rapid internationalization pathway emerges. Labeled as "born globals", companies following this pathway seek internationalization opportunities since their inception. During the internationalization process, companies face various barriers. While the research studies provide certain insight into the internationalization barriers that affect larger enterprises, the context of born globals is not that much investigated. The purpose of this study is to shed some light on the internationalization barriers among born globals. As the selected research method, two in-depth interviews with industry professionals in order to investigate common internationalization barriers among digital agencies. Some of them are external and mostly related to the lack of market information. Internal barriers are usually related to the productive capacity, available funds, manager's uncertainty and low level of risk accepting. Therefore, digital agencies follow different internationalization pathways. Although they base their business on the Internet, they are not necessarily highly internationalized and, in some cases, follow gradual approach with lower market commitment. Agencies with more resources and good ties on international markets tend to internationalize their business at higher pace. While being exploratory, this paper provides guidelines for further research of the rapid internationalization phenomenon among digital marketing agencies.

*Keywords: internationalization, Uppsala model, stage model, born global, internationalization barriers, digital marketing, advertising agency.*

## INTRODUCTION

The purpose of this paper is to provide certain insights into the internationalization process among digital marketing agencies. Specifically, this paper has two main objectives. First of all, common internationalization patterns among digital marketing agencies are investigated in order to be compared with the specifics of the two opposing internationalization theories. While the preliminary study (Draskovic, Markovic and Hruskar, 2017) indicates rapid internationalization pathways quite common among digital marketing agencies, there are also cases with more conservative approach towards internationalization. Finally, this paper focuses on the detection of internationalization barriers among digital marketing agencies.

Due to the nature of digital marketing agencies, Internet can be considered as the main catalyst for agencies' internationalization. Since its commercialization in mid 1990s, the Internet has been considered as a crucial force shaping modern business landscape and providing both entrepreneurs and managers with vast opportunities for the development of new and innovative business models. The newly formed internet economy received big support of financial markets leading to an enormous financial bubble that resulted with a market crash in 2000 and massive bankruptcies among the so-called dot-com companies (Berlin, 2008). Since then, a lot of things changed. Internet technology penetrated even further into economy and also our private lives, especially in its mobile form. In the late 2000s, social media became the "new internet" and new companies and business models emerged on the wave of digital transformation. Additionally, the Internet erased boundaries between countries and provided additional opportunities for internationalization for both existing businesses and start-ups. The internet brought a plethora of business opportunities for companies on a global scale. Traditionally, internationalization is being considered as an incremental and slow process that requires a lot of time and significant amount of resources (Johnson and Wahlne 1977; Bilkey and Tesar, 1977; Reid, 1981). Therefore, it was mostly attributed to the large-scale enterprises (LSEs), usually originating from economically developed western countries. On the other hand, the Internet acted as an equalizer of business opportunities removing geographical, economic and cultural barriers supporting small and medium-sized companies (SMEs) in their internationalization efforts, especially in the context of non-western countries with the lower level of economic development.

Theoreticians (e.g. Oviatt and McDougall, 1994; Gabrielsson and Kirpalani, 2004) noted existence of companies that do not follow traditional stages pattern of internationalization. Instead, their internationalization is rapid from inception and the Internet, usually, plays very important role in companies marketing efforts and daily operations. Additionally, the whole process has to be supported by the managers' global mindset, which has positive impact on the internationalization efforts and performance (Miocevic and Crnjak-Karanovic, 2012).

Utilizing exploratory research methodology, this study mainly focuses on internationalization motives and barriers. Additionally, the study investigates digital marketing agencies' internationalization modes comparing them with the two main theoretical approaches – Stage Model and Born Global.

## INTERNATIONALIZATION THEORIES

Internationalization in general can be understood as “the process of increasing involvement in international operations” (Welch and Luostarinen, 1988, p. 84). Internationalization has been studied by scholars for decades and the wealth of research findings, with theories and models built on them, mark the evolutionary peculiarities of different times and conditions that existed, out of which many persist to date. Analyzing the literature, it is visible that theories of internationalization of firms can be generally divided into two main streams: stage models of gradual internationalization of firm and models of rapid internationalization that neither follows gradual approach in models of foreign market entries modes neither the gradual distance mode from domestic market (Caputo *et al.*, 2016).

### *Stage Model of Internationalization of Firms*

Early models and theories emerged from the efforts to systematically explain internationalization pathways of various firms through the 1970s. Among them, the Uppsala model or the Stage model (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990) attempted to explain internationalization pathways of Swedish firms particularly focusing on the choice of country to enter and choice of mode of entry. As the (Stage) model suggested, firms initially opt for entering the countries that are the “closest” to their home market (neighboring countries) and with the modes of entry that are the “simplest” ones (exporting). This approach minimizes the risk of failure by targeting countries that are “close” to home country across numerous variables. Most commonly researched variable that serve as distance indicators were geographical, institutional and cultural distance from the home country (Brewer, P. A. 2007). Stage model also suggests that firm will expand internationally at a different pace primarily depending on the size of their domestic market and the size of the company (Peng, 2013). Firms that grow faster will accumulate more resources to counter the liability of foreignness in an easier way, relying on abounded resources available. Evidence points to the fact that there is a positive relationship between company growth ambition and exporting (British Business Bank, ERC and Goldman Sachs, 2015). Also, firms that saturate their domestic market early on will tend to internationalize sooner as this presents their only way of growing within the industry they compete in. This reasoning adds additional layer of understanding within the Stage model of internationalization.

Internationalization decision is intertwined with the choice of entry mode. Companies choices among main types of entry modes have been explored extensively (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990; Hollensen, 2017). In essence we can differentiate between export modes, intermediate modes and establishment of foreign wholly owned subsidiary. Export modes require lowest financial and organizational commitment and bare relatively low risk. Therefore, it is usually the first step in the internationalization process, especially among SMEs. In case of export mode, companies can choose between two options: (1) export directly to foreign customers or (2) to export through an intermediary (Peng and York, 2001; Hollensen, 2017). In case of direct exporting, a company has sole responsibility for finding customers abroad and to organize deliveries. The role of intermediaries is to support exporting companies with relevant market information that can reduce uncertainties and related risks, and to perform whole or partial exporting function (Acs and Terjesen, 2013). However, this mode of entry might be adequate for the early stages of internationalization but it also has disadvantages that might negatively impact companies' growth (Chintakananda *et al.* 2009). Intermediary is incentivized not to share all the information available and relevant to exporter with the exporter since this will most likely reduce his bargaining power in negotiation with exporter. Intermediate modes signal strategic success for the company and mark positive strategic development. Company commits larger resources to their international market(s) and often times expands geographical reach. Establishing wholly owned subsidiary in an essence marks the end point of internationalization as the difference between resource commitment between domestic and foreign markets essentially subside.

Although Stage model received substantial empirical support and extensions, i.e. Makino and Tsang (2011) have expanded the traditional variables used to measure distance by discovering the link between historical ties between countries and FDI flows, limitations of the model were also pointed to. Hernández *et al.* (2018) pointed that family firms might have an opposite choice patterns vs. non-family firms regarding the international location choice when taking institutional distance into consideration.

#### *The Born Globals Theory*

While reporting on the fast internationalization phenomenon among Australian export firms, McKinsey study come up with the term "born globals" in order to emphasizes the speed of the process that traditionally requires quite significant amount of time (Rennie, 1993). The study made distinction between traditional domestic-based companies focused on domestic sales and born global, companies with most of their sales resulting from exports, among the higher-value-added manufacturing firms in Australia. As the study suggested, these small to medium-sized companies successfully competed against bigger, well-established companies. Oviatt and McDougall (1994) also described same phenomenon but they labelled it as an International New Venture (INV). According to them, INV is "a

business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries". Knight and Cavusgil (1996) described born globals (or INVs) as often small and medium-sized enterprises (SMEs) with strong focus on information technology and with the global market vision. Crick (2009) distinguishes born globals and INVs, considering former as firms with global presence and commitment, while later are considered as internationalized firms with regional focus. To summarize, the aforementioned definitions emphasize the phenomenon of small and relatively small companies being active on global market, contrary to the more traditional views and theories describing only the LSEs as being capable of serving global markets

In contrast to the traditional internationalization theories suggesting slow and gradual internationalization, such as the Uppsala model (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990), born globals usually skip lower commitment entry modes, while giving advantage to more advanced modes with higher commitment levels (Ferencikova and Hluskova, 2015). In addition, what distinguishes born globals from other start-ups is very rapid internationalization since their inception or soon afterwards (Moen and Servais, 2002; Chetty and Campell-Hunt, 2004). Furthermore, they are prone to quickly adopt internet-based sales channels (Gabrielsson and Gabrielsson, 2011), but also different types of hybrid distribution channels combining traditional means of distribution and internet (Hollensen, 2017).

To be labeled as born globals, companies going through rapid internationalization also have to satisfy certain export ratio criteria. However, there is a lack of consensus among scholars about the portion of exporting activities that qualifies companies as born globals. According to one approach (Knight and Cavusgil, 1996; Knight, Madsen and Servais, 2004; Servais, Zucchella and Palamara, 2007) suggest their exporting activity should reach at least 25% of their revenues within three years since the firm's inception. Other studies consider 25% being too low in the context of small economies (Madsen, 2013; Sleuwaegen and Onkelinx, 2014). Apparently, niche markets tend to be too small in such environments, rapidly pushing companies to search for similar market segments or niches within the global market, which significantly reduces their home market focus. Furthermore, companies residing within countries with small domestic markets are more prone to become born globals than companies with large domestic markets (Madsen and Servais, 1997). In a recent study by Choquette *et al.* (2017), analyzing a sample of 23,201 firms, average revenues from international activities were as low as 22%.

There are also further inconsistencies among researchers when it comes to the number of markets a born global company has to serve. Crick (2009) describes born globals as firms with presence "in at least the world's triad regions". Traditionally, Japan, Western Europe and North America were considered as triad regions due to their high economic development and dominance in the world

economy until the late 1990s (Colinson, Narula and Rugman, 2017). However, with the rise of BRICS, Eastern Europe and Next eleven (N-11), the economic weight of triad regions declined making Crick's definition obsolete. Other authors consider at least five markets as a threshold for a born global firm (Kuivalainen *et al.*, 2012; Sleuwaegen and Onkelinx, 2014). Madsen (2013) and Sleuwaegen and Onkelinx (2014) imposed certain limitations to this approach adding additional criteria of being present in at least two regions, where one should be outside the EU (in case of EU firms).

## **INTERNATIONALIZATION BARRIERS AND BORN GLOBALS**

The marketing literature recognizes various barriers that prevent companies to initiate the internationalization process. Some of the critical barriers are insufficient finances, lack of market information and connections, not sufficient productive capacity to cover international sales, and management focus on domestic markets (Hollensen, 2017). Furthermore, company related specifics such as home versus host region-orientation and the company's industry, especially in the context of LSEs, has significant impact on the internationalization process and company's performance (Ferraris, Bresciani and Del Giudice, 2016). The Uppsala model is basically built on an assumption that companies due to lack of market information follow the pathways of slow, gradual internationalization (Johanson and Vahlne, 1990; Hollensen, 2017). While the aforementioned internationalization barriers are commonly associated with LSEs, specifics of the born global internationalization pathway are determined by their business strategies and rapid internationalization (Luostarinen and Gabrielsson, 2006). However, empirical research focused on specific internationalization barriers that interfere with born globals is rather limited (Danik and Kowalik, 2015). Or, the main actors of the rapid internationalization are seldomly aware of barriers, so there is not much to be investigated?

Persons acting as founders of born globals and INVs are often characterized as overconfident persons with unreasonable optimism (Liesh, Welch and Buckley, 2011). Their behavior can be described as a mix of innovation, proactivity and risk or opportunity seeking (McDougall and Oviatt, 2000; Oviatt and McDougall, 2005). However, a study by Keupp and Gassmann (2009) reported a significant number of born globals that are not conscious or constrained by lack of knowledge about international markets or lack of experience. But it does not necessarily mean that born globals are more prone to risk. While a business activity may appear risky to a more established firm, an entrepreneur may perceive same activity as less risky (Simon *et al.*, 2005; Janney and Dess, 2006). Furthermore, firms being in the preparation phase for internationalization, but still without any current international activities, may underestimate some barriers and overestimate others (Internationalisation of European SMEs, 2010).

While studying entrepreneurial new ventures in New Zealand, Shaw and Darroch (2004) detected finance and cost-related factors as the main internationalization barriers among exporters and likely

exporters. On the other hand, non-exporters perceive firm size, lack of market knowledge and lack of experience as main barriers. A study by Luostrianen and Gabrielsson (2006) detected following categories of the so-called entrepreneurial challenges or barriers among born globals: 1) managerial challenges - mainly related to the limited experience of managers, their limited marketing and managerial knowledge, lack of focus and workable business and marketing plan, together with insufficient revenue; 2) R&D challenges - related to the high cost and long duration of R&D process; 3) sales and marketing challenges, caused by low investment and low focus on marketing and sale functions, together with delayed planning and implementation of marketing tasks; 4) financial challenges – caused by lack of money, high price of money, weak revenues due to low sales levels and penetration pricing.

According to a study commissioned by European Commission (Internationalisation of European SMEs, 2010), there are various internal and external internationalization barriers in the context of SMEs. Among internal barriers, respondents perceived price of firm's products/services, high cost of internationalization, and product specification and quality as the most important. As external barriers, European SMEs consider lack of capital, lack of adequate public support and, of adequate information, and high transport cost or difficult transport related paperwork. In overall, respondents perceive higher importance and impact of external barriers in the context of non EU-EEA markets than in case of EU-EEA markets.

## **RESEARCH DESIGN**

As the literature review revealed, the number of research studies dealing with the rapid internationalization of digital agencies is limited. While there are some studies approaching this topic from the SMEs perspectives and certain analogies can be drawn, born globals have their own specifics and require further investigation. This study aims to make an initial effort in revealing typical barriers born globals face while they internationally expand their activities. The study focuses on the specifics of the digital marketing agencies internationalization pathways.

Due to the exploratory nature of this study, a qualitative research methodology has been selected as the most appropriate. As Golic and Davis (2012) suggest, a qualitative study provides deeper understanding of the researched phenomenon by providing more detailed information. The research method applied in the context of primary research is an in-depth interview. A total of two in-depth interviews were conducted during the second half of 2019. The interviewees were founders and managers of an online platform that performs intermediary services for both digital agencies and their potential clients. Although founded in Croatia in 2016 and having an additional office in Ireland, this platform is a global phenomenon providing services to over 6,000 agencies from 123 countries. While

helping digital agencies to internationalize their respective businesses, the platform itself went through a rapid internationalization qualifying itself as a born global. The interviewees can be considered as industry experts since they conducted a comprehensive market research of the digital marketing industry in order to develop their online platform. They also gained additional experience and market expertise in the past few years while they were promoting their platform on various online and offline events across the globe.

## RESEARCH FINDINGS

As the interviewees reported, the impact of barriers on the digital marketing agencies internationalization efforts actually sparked the idea to form a start-up that will act as an intermediary, connecting agencies with their potential clients on the global market. As they noted, clients tend to search for agencies in their close neighborhood, in order to simplify and speed up the selection process. However, there are also some other reason why clients act like this: "Digital marketing industry is, actually, quite a local one. When searching for service providers, clients are usually searching for an agency within their geographic region. For example, a company in Los Angeles will always look for an agency in Los Angeles area. The clients usually don't bother looking for agencies abroad. First of all, they have no information about good and reliable agencies from other countries. In addition, they probably have certain level of experience with some local agencies, although it sometimes means they also charge relatively high fees." [Interviewee 1]; "I am sure some clients are aware that certain services cost less in some emerging countries, but they have no idea about the existence of, for example, some great digital agency in Bulgaria. Additionally, setting-up business relationship with a new service provider requires significant travelling abroad...which also generates extra costs." [Interviewee 2].

When it comes to the internationalization pathways, interviewees noted existence of few different approaches. Some digital agencies tend to expand regionally by targeting neighboring countries and they try to find long-term international clients. These agencies are mostly motivated to internationalize due to domestic market saturation and relative productive overcapacity. Their internationalization is usually gradual, with just one or a few targeted markets. Limited internal resources, including manager's lack of knowledge about foreign markets. The other group of agencies, especially those from emerging and formerly emerging markets, target clients in western countries, especially in the US, UK and Germany. Although it sometimes means bridging significant geographical distances, the market potential of a distant country is mostly sufficient to employ the excess capacity, so there is no need to expand on additional markets.

Agencies with occasional overcapacity tend to follow certain part-time internationalization model. Due to limited resources, they internationalize their business in times of excess capacity. When the local

clients provide them with sufficient number of projects, they refocus on domestic market and neglect international markets. On the other hand, some agencies dedicate most or even all of their capacity to serve international markets. This is quite common if an agency offers very specific type of digital marketing services where there is no local demand.

Digital agencies from various countries face similar internationalization barriers. They have difficulties detecting and targeting clients abroad because of lack of reliable market information and no international ties. Sometimes, even language barriers can prevent them to target clients from specific countries. Furthermore, agencies are faced with certain internal obstacles: "To internationalize, an agency would definitely need dedicated staff and some marketing budget to search for foreign market opportunities. Google and LinkedIn can help. But, at the end of day, it is a time-consuming process and potential clients sometimes have a negative attitude towards unsolicited offerings they receive through digital channels." [Interviewee 2]; "Sometimes, agency managers are not feeling confident to internationalize beyond their region, which comprises few countries within the EU, usually with the same or similar language. Since internationalization on a larger scale require more internal resources and more money to be spend while targeting potential clients, some managers are cannot accept the related risk." [Interviewee 1].

When it comes to the potential obstacles in the relationship between an agency and a client, both being from different countries, there is also some general commercial risks, such as on-time payment for provided digital marketing services and on-time delivery by an agency. In some cases, both sides can be quite cautious about each other due to high perceived risk: "People, sometimes, tend to stereotype certain countries and regions of the world. Especially, if they have no previous experience or they have some bad experience from, form example, their holydays." [Interviewee 2]; "Developing business connections on the global level takes time and there is always a certain amount of risk. An agency has to be sure to collect its money after delivering the service." [Interviewee 1].

## DISCUSSION AND CONCLUSION

Although this study has certain methodological limitations, it managed to detect diverse internationalization pathways among digital agencies. Despite the advantages of modern technologies and various internet platforms, some agencies follow traditional pathways with gradual international expansion and lower market commitment. However, they do not necessarily follow nor transition through stages as described by the Uppsala theory (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977; Johanson and Vahlne, 1990). Due to the lack of resources and perceived internationalization barriers, their internationalization efforts are somewhat limited.

On the other side, there are agencies dedicating most of their resources to the international clients. Their internationalization usually starts at their inception, since there is very limited demand for their specific services on the domestic market. Therefore, these digital marketing agencies can be considered as real born globals fulfilling all the relevant criteria outlined in the related studies, such as speed of internationalization, high commitment, export ratio and utilization of the Internet based technologies (Moen and Servais, 2002; Chetty and Campell-Hunt, 2004; Gabrielsson and Gabrielsson, 2011; Ferencikova and Hluskova, 2015). Additionally, some agencies internationalize occasionally, when faced with excess capacity. Although this type of part-time internationalization can be characterized as a low commitment approach typical for the Uppsala theory's early stages of internationalization, the process itself can be quite rapid and include several foreign markets. Therefore, this hybrid approach also contains elements of the born globals theory and we can consider these agencies as part-time born globals.

The research showed that there is a strong mindset about the market for digital marketing agencies being very localized, which represents one of the biggest internationalization barriers. This is probably legacy thinking from before internet era when geographical distance, as one of the forms of distance discussed earlier in the paper, served as a strong predictor of choices of particular digital agency. Furthermore, this could be also attributed to the lack of information about export markets, which is in line with some previous studies (Shaw and Darroch, 2004; Internationalisation of European SMEs, 2010).

As the noted successes of born global digital marketing agencies becomes more prominent the awareness of importance of expanding search distance when selecting digital marketing agency is most likely to grow as well. This will lead to reducing localization and increasing internationalization and globalization of the market for digital marketing agencies.

Taking into consideration research limitations and implications, further research should explore the born globals phenomenon in order to provide additional insights from the perspectives of digital marketing agencies, especially about the perceived internationalization barriers and internationalization best practices. While there is a significant number of studies focused on rapid internationalization and born globals, the number of studies that cover internationalization specifics of digital marketing agencies is quite limited. Furthermore, future studies should also address some of the methodological shortcomings of this study. Considering the sample size, it can be hardly said that results here present robust findings. Future studies need to expand the sample size, not just in quantity of digital marketing agencies surveyed but also in terms of their expanded geographical scope. Also, one important avenue of research is to compare the observations discovered and presented in this study across other areas of business, not just across digital marketing field. There are for sure valuable

discoveries to be made and learning opportunities to be explored by looking at globalizations patterns of born global start-up companies from other areas of business.

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## DIGITAL BOOKKEEPING: ELIMINATING OR FACILITATING THE ACCOUNTING OCCUPATION?

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### ABSTRACT

In the information technology revolution there are several issues that concern Accountants and Tax Professionals. One of them is the application of electronic bookkeeping, which refers to a new dynamic application, which is expected to modernize the traditional format of accounting. The following paper deals with the issue of electronic bookkeeping and its effects in facilitation and sustainability of the accounting profession. The survey was conducted all over Greece by random sampling of 280 accountants. A multinational and multicultural environment is a challenge and requires proper management of international issues, including technological demands. The objective of this research is to examine the level of professional promptitude and technology awareness of Greek professional accountants. Furthermore the paper is concerned with the ability of using accounting information systems, but also the fears and issues digital-bookkeeping manifests on accounting professionals.

*Keywords: accounting information systems, accounting, digital accounting, cloud accounting, digital economy*

### 1. INTRODUCTION

In the information technology revolution there are several issues that concern Accountants and Tax Professionals. One of them is the application of electronic bookkeeping, which refers to a new dynamic application, which is expected to modernize the traditional format of accounting.

It is a fact that in the coming years with the development of technology and the modernization of the accounting profession it will be necessary for all Accountants to be well versed not only in the accounting software they use for their daily operations but also in various electronic applications that will improve communication and data exchange. The qualification and training of

professional Accountants - Taxation Professionals is necessary to enable them to make effective use of technology.

There is an urgent need to develop multi-role skills at the undergraduate level. In addition, what aggravates the problem and the need for technological training in academic institutions is the fact that there is a lack of knowledge in both communication and information technologies and information systems that are in line with the modern requirements of the profession (Ahmed, 2003).

Interviews for new hires in the accounting industry are based on multiple criteria, not just academic qualifications and knowledge. Technology with the tools available gives everyone the opportunity, even as a self-taught person, to greatly cultivate these skills (Gordon, 2018).

The new model that may be created in the coming years through the electronic bookkeeping application can bring extensive changes to both the accounting information systems used and the accounting profession as we know it today. The business plan should investigate whether the implementation of an electronic application in a dynamic environment is in line with the needs of the business environment.

The bibliographic overview led to further research through interviews and questionnaires to a representative sample of Professional Accountants - Tax Engineers in the Greek territory.

The purpose of the research was to study the technological maturity of the professional Accountants - Tax Engineers and to analyze the concerns that electronic book keeping and the prospect of the accounting profession have in the future.

## 2. LITERATURE REVIEW

Today, the need to upgrade accounting to a level that is in line with new technology drives professional accountants to continuously improve their consulting services. Every professional Accountant - Tax Technician should take the time to get to know the technological tools and accounting software he / she is using to the full (The Institute of Certified Bookkeepers, 2018).

However, technological development has created some issues which can turn into threats if not given due attention. Cloud technologies, for example depending on their reliability and functionality, can create operational problems such as:

- Online exposure of data to off-premises servers
- Possibility of remote access to unauthorized users
- Lack of connectivity in each area with the server and data
- The likelihood of data being intercepted and tampered with

The biggest weakness of the above is the exposure of sensitive and personal data online which may be due to the lack of appropriate security measures (lack of encryption, unverified credentials).

This results in unauthorized access to the data by third parties. Consequently, the role of Accountants becomes sensitive in ensuring data protection. The risk of data loss in the event of a breach should also be noted (Rîndașu, 2017).

Running a business in a multinational and multicultural environment is a challenge and requires proper management of international rules. Accountants should ensure that their clients fulfill their legal and tax obligations with the countries that are trading (Praxity - Global alliance of independant firms, 2014).

According to Radu (2008) it has been found that cloud accounting will have some weaknesses in its launch but also some negative effects that can be summarized below:

1. Reduction of jobs due to automation of several jobs
2. Increased investment cost in software and computers
3. Increased costs for redesigning internal processes
4. Increased costs in external staff training seminars
5. Increased costs for increased software protection measures

Rao et al. (2017) also mention:

1. An internet connection is a prerequisite for operation
2. Data control and dependence on impersonal managers not directly controlled by the business
3. Lack of customization capabilities in the measures of each business

Finally Ionescu et al. (2013) add the following issues:

1. Licensing of cloud technology programs does not belong to the business but the business usually leases the royalties
2. Storage of personal and business data on non-local servers away from its headquarters
3. The legal status of data storage and management may be different from the domestic status if the host is in another country (Ionescu et al. 2013)

An inevitable effect of digital accounting is the increased pressure on professional accountants, because in order to become competitive and keep up with the times they need continuous improvement and training in automation. After research, it has been shown that almost 7 out of 10 professional Accountants need to learn more about the types of automation they can use and still feel half-way, while about 3 in 10 respond that there is insufficient training even though they pay enough. striving to improve on a daily basis both in their workplace and by attending specialized seminars (Anderson, 2017).

In recent years, accounting information systems has automated or minimized the trading activity associated with accounting records. This in itself indicates that some jobs, mainly at the

Accounting Assistant level, are likely to be eliminated as it appears that a number of accounting tasks, such as data entry, will now be carried out by automated systems and applications.

Each system however is not meant to operate completely autonomously, so users should have the basic knowledge to intervene if needed. Frequent intervention in the systems will, however, be difficult and will require many jobs, especially at the level of assistant accountant, at risk of being eliminated in the coming years (Muldowney, 2018).

Legislative books should be kept in accordance with the Accounting Standards of the country in which they are opened. However, the electronic application must be harmonized with tax legislation and accounting standards. This way simplification will mainly control the tax, statistical and financial framework but not the accuracy of accounting standards and records (Koulogiannis, 2018).

On the other hand, digital accounting through an online book keeping application will be a great innovation. There is always the risk that handwritten files can be destroyed, lost, stolen, and definitely their archiving is something that requires more time and cost.

New information systems are expected to operate online by storing records in local or cloud databases, where accounting records will be readable, secure, properly classified, and easily searchable otherwise there will be difficulty in operating this system. As a result, each record will be able to be linked to the bank account entry and registration software so that electronic transactions are automatically recorded in the record books.

Also, in previous years and even today, manuscript invoices tend to be issued but tend to be slowly replaced by the new e-invoicing expected to be introduced. Plus, this will be your preferred method of pricing through a single platform or accounting software (1800Accountant, 2018).

Another advantage is the fact that electronic books can be accessed remotely. In such accounting applications, the books may even be automatically updated. The concept of digital accounting will be easily accessible to users with a reduced risk of error in primary data (1800Accountant, 2018). This way the necessary information is easily shared between businesses, clients and colleagues. In addition, filing data such as documents is a time consuming process that commits resources to each business (Gordon, 2018).

According to various studies, it has been found that the positive features of using cloud accounting can be distinguished from those related to the impact on the turnover of a business and on its expenditure circuit. For example saving paper for printing and archiving documents (Radu, 2008) and direct access to primary data once it has been registered (Rao et al, 2017).

Related studies have shown that new information systems in combination with emerging technologies create a framework for coordinating work with real-time reporting and forecasting models even remotely online for any business (Rîndașu, 2017).

So the time saved could be reinvested in entrepreneurship, which was estimated to bring about a 34% increase in employee earnings. Concerning the level of preparedness of professional accountants, only 23% responded that they were ready for the upcoming changes. In fact, almost 2 in 3 (64%) responded that they know someone who works with traditional to "primitive" methods. Many of them generally agree that the transition will be quite a painful process, but agree that it will benefit all involved in the long run (Anderson, 2017).

Estimates have shown that the profit margin per month could increase by up to about 5% due to cost savings from using "cloud" technology. In fact, as users in the cloud computing system grow, the associated operating costs decrease and the rate of return on equity increases, resulting in increased profit margins of up to 8% per month (Ionescu et al. 2013).

We observe in the market the transition from the concept of 'Accountant' to 'financial analyst' and ultimately to 'business partner' (Muldowney, 2018). Employees mainly in large accounting firms gaining experience over the years have the option to change departments or directions with increased earnings and career prospects (Gordon, 2018).

In a new digital world, deep knowledge of accounting in the sense of credit will be of little importance, and understanding of audit procedures (I.T) in information systems and their accessibility will be crucial. Already, traditional forms of sampling that require thought and judgment tend to be eliminated and replaced by data analytics and artificial intelligence tools (Muldowney, 2018).

### **3. THEORETICAL FRAMEWORK**

Although most are familiar with new technologies they do not make the most of them for their professional benefit (Rîndașu, 2017). In addition, for an Integrated Accountant, he or she should perform the role of chief executive officer in the information system and also be able to perform at least one of the other roles of the designer-administrator or evaluator (Richardson et al, 2017).

#### **3.1 Technologically Abbreviated Activities**

The unwritten rule of 80/20 in this case proves to us that 80% of the work we complete comes from 20% of the energy we devote. Therefore, prioritizing the most important work we ensure that we complete the remaining 20% of our work, utilizing our energy at 100% and often completing our work faster (Owens, 2018). Artificial intelligence infiltrates accounting software by creating automations

that replace recurring routine tasks that employ professional Accountants, thus saving valuable time for essential and complex activities such as data analysis and business consulting (Rîndaşu, 2017).

In general, as technology progresses, the amount of time required to perform accounting tasks at an early stage is reduced. Consequently, there is more productive time left to engage with their clients in order to provide businesses with information that is essential to entrepreneurship (The Institute of Certified Bookkeepers, 2018).

The saving time can be exploited in various ways in various aspects of each professional responses indicative given after surveys were as follows at the Anderson (2017):

1. Better work-life balance (42%)
2. Providing more meaningful reports and advice to their clients (21%)
3. Search for new business and investment opportunities (17%)

### **3.2 Advanced Professional Technology**

Technology will play a major role in the future design of digital operating models, reports and forecasts and should become a cornerstone of strategic importance (Victor, 2018).

The tendency to implement smart software will be reinforced. Many networking platforms once they handle big data will be able to export more data and potential investors will in turn be able to detect opportunities (Islam, 2017).

Knowledge of digital technologies will be a competitive advantage, while at the same time Accountants having the ability to extract comprehensive reports that will display quantitative data and interpret qualitative characteristics of businesses. So far few academic institutions have developed a curriculum related to these future needs of the profession (Islam, 2017). Some of Wolf's (2015) dominant technologies that affect the accounting industry are the following:

1. Mobility applications,
2. Cloud application technology,
3. Social collaboration,
4. Digital service delivery using specialized programming languages
5. Big data
6. Electronic payment systems
7. cyber security,
8. Robotics (automation in repetitive routine work)
9. Augmented and virtual reality,
10. Artificial intelligence,

In any case, decision makers should use their analytical skills and skills to decide which of the above tools may be appropriate for their business purposes (Chua, 2013).

Cloud accounting information systems give the prospect of a flexible and competitive service among their users. This perspective is undoubtedly due to the widespread adoption of high-speed Internet connectivity worldwide (Praxity - Global alliance of independent firms, 2014).

### **3.3 Transaction Supervision Capacity**

Technology has already transformed entrepreneurship, there is an increase in online shopping, e-commerce and all kinds of information that is now being digitally distributed among consumers, businesses and banks. According to surveys, 83% of Accountants think they need to be proficient in technology as well as accounting, while 48% of business executives worry about being left behind, a double that of last year. Even the UK tax and customs information system has been upgraded to a new system whereby all business transactions will be automatically registered in an online tax account and along the way these accounts will be submitted quarterly for tax clearance (Anderson, 2017).

In its operation, England's HMRC information system was capable of supervising and cross-checking transactions with tax data, thereby eliminating the tax gap arising from manual cross-checking of incorrect or unregistered transactions. However, the initial accountability of accountants in the transition to the electronic system appeared to be negative as it replaced much of the way the procedures were conducted (Stuart, 2017).

Electronic bookkeeping as a development of digital accounting is gaining ground, but it is not yet fully implemented. Over 3 out of 4 accountants working in companies quite often use simple spreadsheets, with almost 18% keeping handwritten records. 94% of businesses, however, want their Accountants to use state-of-the-art tools. Consequently, professional Accountants now rather than spend unnecessarily on records to conduct quality audits once the human error factor is eliminated in the primary data (Anderson, 2017).

### **3.4 Automated Accounting Degradation**

Technological changes can create business opportunities for the accounting industry in the country, as many businesses that send reports once a year to authorities find it difficult to send quarterly and outsource bookkeeping. But there is also the opposite view that pressure on Accountants by multiple deadlines and reports will be more intense throughout the year. In any case, however, it should be clarified exactly how the filing and clearing system will work if new and specialized software is required by the Accountants which will increase their operating costs and if they really need new software to know it as early as possible. to prepare properly (Stuart, 2017). Some attributes such as confidentiality, honesty, interpersonal relationships, critical ability, reasoning and

creativity are strong links between Accountants and clients and therefore cannot be replaced by any information systems at present (Anderson, 2017).

An information system that will operate remotely from anywhere, securely and be updated in real time will give another dimension to the communication between Accountants and their clients. If all the data is more directly recorded in the information system, then the Accountant will also be able to provide more direct tax advice so that customer relationships can be strengthened (openaccessgovernment.org, 2018).

Several Assistant Accountant positions are expected to disappear. On the contrary, there will still be a need for professional judgment and specialized accounting knowledge to interpret the results of automated processes. The problem, however, is how to develop the advanced judgment and specialization of Accountants if in the future several positions at the primary level are missing. Judgment and specialization are skills acquired through years of experience at a prime level (Muldowney, 2018).

Computerization in recent years has largely replaced routine tasks based on clear rules and programming languages. However, in the digital age of the evolution of big data processing algorithms, many tasks that are not routine but require thinking and judgment to be automated due to the evolution of robotic and artificial intelligence are observed. Consequently, in the coming decades accounting professions with increased critical thinking requirements will face the risk of being eliminated. In the USA. About 47% of the occupations currently available are in danger of being eliminated due to galloping technology and automation. It has been found that basic accounting processes (payroll, book keeping, auditing, taxation) are very close to the possibility of full automation (Frey and Osborne, 2013).

#### **4. METHODOLOGY**

During this study we adopted the mixed method approach, which includes both qualitative and quantitative methods. The theoretical model incorporates factors based on information from relevant literature and articles as well as from interviews with accounting experts. The theoretical areas that have emerged from the literature relate to 1) technological training and familiarity with accounting applications, 2) the disadvantages and risks inherent in the accounting profession from new applications such as electronic bookkeeping, 3) active forces and perspective opportunities created for the accounting profession by the application of electronic bookkeeping.

The above theoretical fields in combination with the interviews and the literature review highlighted the basics of the questionnaire. The interviews took 3 weeks to complete. Thematic analysis was used to analyze the information obtained from the interviews. The experts'

recommendations led to some minor changes in the formulation of the questions and minor verbal changes, while 2 questions were added by the experts and considered interesting for further investigation. It consists of 38 individual questions on a Likert gradient scale. The target population of the research consists of 400 Accountants and therefore a sample size of 208 can be considered representative of the population at 95% confidence level.

## 5. RESEARCH RESULTS

The following section presents frequencies and percentages for the personal and demographic data of the respondents. We observe that the sample is approximately sexed with males but comparatively larger. Regarding the age range of the respondents, we observe that the majority (56.7%) is 31-45 years old.

The age groups 18-30, 46-60 and 61 or more have comparatively lower rates of 15.9%, 26% and 1.4% respectively. Regarding the variable "work experience" we observe that the majority of respondents, about 2 in 3 professionals, have work experience of up to 20 years mainly, while the relatively more experienced with over 20 years are only 1 in 3.

We observe that the majority (69.7%) are external accountants or have an accounting office with responsibility for their clients. There is an increased majority of those working in small businesses of 1-5 people (73.1%).

|  |   | Percent | Frequency |
|--|---|---------|-----------|
| Gender   | Male  | 58,2    | 121       |
|  | Female  | 41,8    | 87        |
| Age  | 18 – 30 years of age                                  | 15,9    | 33        |
|  | 31 - 45 years of age                                  | 56,7    | 118       |
|  | 46 - 60 years of age                                  | 26,0    | 54        |
|  | 61 or more years of age                               | 1,4     | 3         |
| Work Experience                                      | 0 – 10 years  | 36,1    | 75        |
|  | 11 – 20 years   | 30,3    | 63        |
|  | 21 – 30 years   | 21,6    | 45        |
|  | 31 or more years                                      | 12,0    | 25        |
| Work Description                                     | Employee Accountant with position of responsibility   | 11,1    | 23        |
|  | Employee Assistant Accountant                         | 2,4     | 5         |
|  | Outsourced Accountant with position of responsibility | 16,8    | 35        |
|  | Outsourced Assistant Accountant                       | 69,7    | 145       |
| Corporation/Organization Size                        | 1 - 5 employees                                       | 73,1    | 152       |
|  | 6 - 20 employees                                      | 15,9    | 33        |
|  | More than 20 employees                                | 11,1    | 23        |
| Skills in Information and Communication Technologies | Novice  | 0       | 0         |
|  | Moderate  | 10,1    | 21        |
|  | Good  | 44,7    | 93        |
|  | Skilled   | 45,2    | 94        |

|                    |                                     |      |    |
|--------------------|-------------------------------------|------|----|
| Level of Education | Middle School of High School        | 1,9  | 4  |
|                    | Vocational Institution              | 7,2  | 15 |
|                    | Technological Education Institution | 32,7 | 68 |
|                    | University                          | 30,3 | 63 |
|                    | Master's Degree                     | 26,9 | 56 |
|                    | PhD                                 | 1,0  | 2  |

None of the respondents self-rated as a novice user, which means that the level of knowledge of information and communication technologies for the accounting industry is virtually indispensable to everyone, with almost half reporting good users (44.7%) .

Almost one third of the sample (32.7%) are graduates of Higher Technological Institutes. A percentage (30.3%) of the graduates are followed by AEI graduates, followed by a very high 26.9% with postgraduate diploma holders.

## 6. DISCUSSION

It is confirmed that technology creates automation that replaces repetitive routine work (Rîndaşu, 2017) and that knowledge of digital technologies will in future be a benchmark and a competitive advantage for professional accountants (Islam, 2017). Emerging technologies (big data, data analytics, cloud computing) will play a particular role in the accounting profession in the coming years (Rîndaşu, 2017). Much of the accounting work is carried out by automated systems and applications, and several audit and tax procedures have been automated.

However, business transactions are not yet fully automated. At the same time, information systems do not seem to have the capacity to supervise and cross-check tax transactions. Therefore, manual cross-checking of incorrect or unregistered transactions has not been desirably avoided, while issues of data entry time, loss of documents and mathematical errors remain.

There is a growing concern in the industry about the specific risks of technological automation that are adversely affecting the accounting profession. Concerns are also raised about electronic book keeping if and to what extent this affects the viability of the industry. It is clear that in the future much of the accounting work will now be carried out by automated systems and applications, as well as several audit and tax procedures.

There is currently no risk of job losses in Greece in the coming years as accounting systems have not been largely developed to automate accounting related business activity, nor are new applications such as electronic book keeping a threat. on the relationship between client business and Accountant.

It is estimated that changes in the organizational structure of accounting firms for electronic bookkeeping are likely to be needed, but there is no clear picture of the extent and nature of the changes that will occur.

## 7. CONCLUSIONS

The accounting profession has promising prospects in Greece as it is undergoing regeneration, redefinition and technological upgrading. It is an opportunity for the entire accounting community, entities, from the first user involved to the tax administration, to converge on tax transparency, electronic standardization, and the emphasis on entrepreneurship and the prospect of accounting.

The success of the online bookkeeping venture may take time, but taking into account the opinion of the Accountants - Tax Engineers will create prospects and facilitate the industry as well as the economy in general. The time savings resulting from the extensive operation of electronic bookkeeping can be exploited in a variety of ways for a variety of professional Accountants. It is therefore considered that there is a risk of eliminating the profession if accountants are left behind in the implementation of electronic bookkeeping.

Proposed measures and improvements that could potentially bring significant results to the practice of accounting include the gradual adoption of electronic book keeping starting with the larger entities and resulting in smaller and better educational orientation in new information and communication technologies. Of course, it is necessary to simplify and converge the Accounting Standards with the tax and labor legislation of each country.

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## JAPANESE HUMAN RESOURCES MANAGEMENT: IS WESTERN-STYLE PERFORMANCE MANAGEMENT WORKING?

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### ABSTRACT

In Japan, the labour force is shrinking and there is high competition for available recruits and their employment expectations are rising. Further foreign owned businesses, foreign investment, foreign customers and suppliers are giving exposure to Japanese traditional firms and employees to Western practices. However, there is inconsistent evidence as to how much Japan has shifted from its traditional performance management practices towards Western styles. Existing research has focused on formal policy rather than actual practices experienced by employees. Japan's aging workforce, compounded by shrinking numbers of youth, is leading to a greater reliance upon women and non-Japanese workers who represent new challenges for Japanese firms. In this paper a total of 89 cases from interviews were collated from across multiple organizations and organizational layers to explore both policy and actual practice. We found evidence for an emerging dual-track system, with traditional Japanese practice for permanent generalist employees, and Western performance management practices for contract specialist employees. We also categorized companies into four types, which differed in the proportions of generalists and specialists used. These types are the traditional Japanese with generalists, the Western type with specialists, and international hybrid and new economy Japanese firms using variable mixtures of generalists and specialists. Models are explained with illustrations.

*Keywords: Japanese HRM practice, performance management, multinationals, international exposure, recruitment competition, shrinking talent pool.*

### INTRODUCTION

Enterprises succeed and grow when they have good internal fit with their external environment, society and stakeholders (DeNisi, 2000; den Hartog, Boselie, & Paauwe, 2004; DeNisi & Murphy, 2017). Fundamentally at the core of this synergy is the contribution and motivation of the firm's internal employees. How they perform impacts the firm. It also connects the enterprise's attractiveness to the external labour talent market. It is fact there is a labour shortage in Japan that is creating strong

competition amongst firms searching for the best recruits. An essential part of what makes a company attractive is the way the company handles its human resources (HR) performance management and compensation schemes. These are critical to enhance the firm's growth and fit with its external environment. In Japan, there has been much discussion about the state of performance management systems, however uncertainty remains as to how, and if, it is progressing to add synergy to the firm. Despite longstanding claims about the demise of lifetime employment (Kato, 2001), there remains an apparent remarkable resilience of both lifetime employment and the Japanese HRM system (Powell, 2016). Given the limited English language research into recent evolution of HR and performance management in Japan, a closer examination is warranted. In order to determine how performance management might be changing in Japan, we conducted intensive interviews involving a total of 89 cases throughout organizational levels as well as across different types of industries.

## PERFORMANCE MANAGEMENT IN JAPAN

Research exploring current trends in Japanese performance management is limited, so a first step is to describe what is a normative baseline for the Japanese approach to managing HR. The three pillars (Abegglen, 1958) of post-war Japanese HRM employment are: 1) lifetime employment; 2) seniority-based pay and promotions and, 3) company or enterprise trade unions. Some key characteristics of this typical traditional Japanese HRM and performance management system (Debroux, 2003; Sano, 1993; Whitehill, 1991) are discussed below.

**Lifetime employment (*Shūshin koyō*).** The most widely known aspect of Japanese HRM is probably the practice of lifetime employment. Employees remain with the firm for the entire period of their working life, and job hopping was most uncharacteristic. This helped protect the company's training investment in employees and developed long-term internal and external trust (*Shinrai*) relationships.

**Seniority pay and promotion system (*Nenkō-joretsu*).** Another stereotypically defining characteristic of Japanese HRM is the reliance upon seniority for promotions and pay increases. This seniority system appears incompatible with achieving high employee performance levels, as it isn't possible to promote and reward good performers. Exceptional performers must wait until they have accrued sufficient seniority to be considered for their next promotion, while employees who are not promoted during that window find their career stalled at their current position.

**Generalists and job rotation.** Japanese college graduates spend the first 5-7 years of their careers rotating jobs broadly throughout the organization, when they become eligible for their first promotion. One reason for this pattern of job rotation is a belief that it is important for managers to become familiar with the overall business. Further, because the company has made a commitment for long-term employment, there is a need to determine how best to utilize each employee, and this period can have a

profound effect on an employee's future. Japanese companies are as a result staffed primarily by generalists rather than specialists. Whereas, employees within Western companies tend to have their careers advance within functional tracks, Japanese employees tend to move across multiple functional postings.

**Pay and Bonuses.** Pay typically has three components: basic pay for career position, seniority increment for years of service, and a company-wide bonus. These bonuses are a part of union agreements and are mostly guaranteed and fixed. This is in contrast to the West where pay varies across functions and depends primarily upon performance.

The broad baseline differences between the two approaches is illustrated in Figure 1. Japan with employees continually rotating throughout the organization, with guaranteed bonus and pay driven by the seniority system. By contrast, the West emphasizes functional specialization, extensive external hiring at all job levels, and a strong emphasis upon individual performance in determining pay.

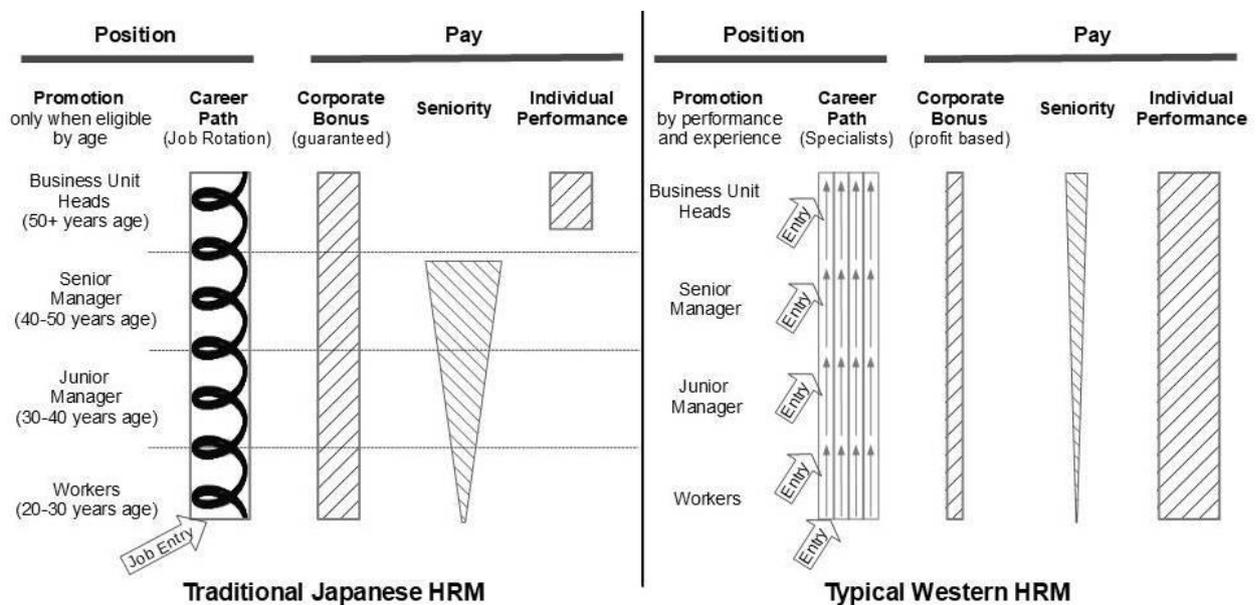


Figure 1: Comparison of Japanese and Western Performance Systems

**The challenge of a rapidly aging Japanese workforce.** Japan is rapidly becoming a super-aged society, with 28.1% of the population aged 65 or older in 2018 (Fukuyama, 2018), with the workforce projected to decline by 20% in the next two decades (Harding, 2019). The declining birthrate also means the number of labor market entrants is declining, with annual entrants now 17% lower than in 2004 (Ministry of Education, Science and Technology, 2019). In response, both the Japanese Ministry of Health, Labor and Welfare (Nikkei Asian Review, 2019), and the OECD (OECD, 2019) have proposed a similar set of remedies: Increased employment of women, the elderly and increasing the number of foreign workers. As a result there is increased competition amongst companies to attract recruits in the shrinking labor market.

*Uncertainties about performance management in Japan*

Much of what is known about the changes in HRM and performance management comes from studies focusing upon systems and policies (Nakamura, 2006; Morishima, 2008), so relatively little is known about how employees are experiencing enacted practices so in our study we took an exploratory approach to the experiences of employees.

*Research objective 1: To determine the current state of performance management in Japan, particularly as experienced by employees.*

**METHOD AND SAMPLE**

To explore the situation in performance management we adopted a grounded theory approach by conducting and analyzing a large number of interviews.

Prior research into the evolution of Japanese HRM has focused upon formal changes in policy as reported by HR executives (e.g., Morishima, 2008; Sano, 1993), rather than examining the experiences of managers and employees. Thus, this study interviewed 89 cases from multiple organizational levels: HR executives and managers, mid-level and line managers, and entry level professionals. We drew upon a diverse sample of participants, interviewing male and female, as well as Japanese and non-Japanese individuals. We also were careful to identify participants from an assorted set of organizations. In terms of industry, we examined a diverse set of industries, including traditional manufacturing companies, service companies, and high-tech/internet companies. Further, we examined Japanese companies, foreign companies, joint ventures, and Japanese companies acquired by foreign companies. Further information about our sample is contained in Table 1.

| Company Types Represented* |    | Job Level of Respondents |    |
|----------------------------|----|--------------------------|----|
| Academic                   | 5  | Academic                 | 5  |
| Traditional Japanese       | 42 | Entry-level Professional | 27 |
| New Economy Japanese       | 13 | Mid-career Professional  | 18 |
| Hybrid                     | 16 | Top-level Professional   | 4  |
| Foreign                    | 13 | Mid-level HR             | 6  |
| Total firms                | 89 | Senior HR                | 6  |
|                            |    | Mid-level Manager        | 6  |
|                            |    | Senior Manager           | 7  |
| Respondent Nationality     |    | Respondent Sex           |    |
| Japanese                   | 38 | Male                     | 51 |
| Asia (non-Japan)           | 27 | Female                   | 28 |
| Non-Asian                  | 14 |                          |    |
| Total respondents          | 79 |                          |    |

Note: The number of company types is not equal to the number of respondents. We interviewed multiple respondents at the larger companies in our sample, and some job-hopping respondents described their relevant experiences across multiple firms.

Table 1: Interview sample

Interviews began by asking the participant how closely their company's human resource practices conformed to the popular image of Japanese HR. Follow-up questions then focused upon mapping out areas where the company HR practices have diverged from the traditional Japanese baseline.

Two interviewers took notes independently and then a meeting was held to create a combined final set of interview notes. Once the interview notes were compiled, the notes were read and reread independently by two researchers, to recognize recurring themes (Cassell & Symon, 1994; Creswell, 1994) across interviews, as well as to identify patterns and relationships for themes. These were then compared and the two separate analyses were then combined.

## **THE CURRENT STATE OF PERFORMANCE MANAGEMENT IN JAPAN**

Four different approaches to performance management in Japan were identified: traditional, new economy Japanese, hybrid, and foreign. Each of these approaches has a specific set of organizational practices associated with it, and these details will be discussed below. Before delving into the details, we first broadly outline these four approaches.

The traditional approach has divergences from the historical baseline being more in appearance than in substance. As an example, a company might say that promotions are based upon merit rather than seniority, yet managers would not in practice promote anybody "before their time." What these companies had in common, other than organizational age, is a focus upon domestic markets or markets subject to considerable regulatory oversight (such as banking or pharmaceuticals).

At the other end of the spectrum were foreign owned companies, particularly those recently established in Japan, with performance management practices largely conforming to the Western baseline. Examples of such non-traditional practices include a genuine focus upon individual contribution, or a much greater acceptance of mid-career hiring.

The final two approaches, the new economy Japanese and the hybrid, are similar in having significant movements towards the Western baseline. However, some retained substantial traditional Japanese elements. For example, individual contributions are rewarded, but bonus payments remain guaranteed (often by union contract). What differs is the pathway and motivations through which the companies arrive at this mix of Japanese and Western practices. Figure 2 provides a simple diagram to help illustrate the relationship between these four different types.

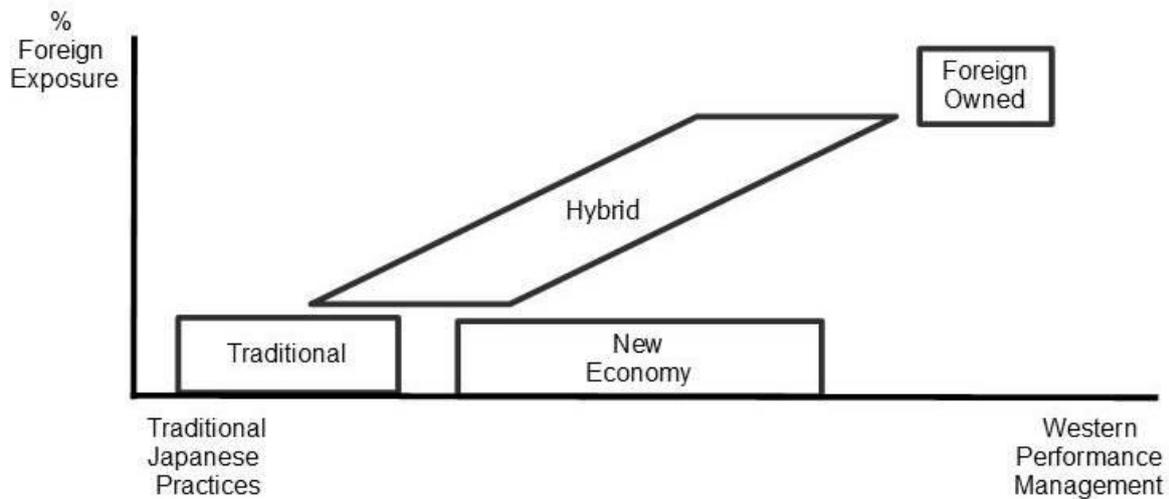


Figure 2: Performance Management Approaches in Japan

The new economy Japanese companies are typically new start-up, IT oriented or with strong or growing international presence, and responding to the desires of a younger workforce. Companies started by older founders, typically adopt HRM systems matching the traditional systems they were accustomed to. By contrast, younger founders, or founders with significant international exposure, tended to adopt systems modeled upon Western practices. Further, these respondents point out that labor market competition for specialists leads and recruits in general led to a greater emphasis upon individual performance management.

The hybrid companies are established Japanese companies with a history of using traditional Japanese management systems that have moved to a mix of Japanese and Western practices. The history and existence of established systems within these firms makes change from the traditional HR practices difficult. One type of hybrid arises when a Japanese company is acquired or heavily invested in by foreign firms, with significant infusion of senior foreign management needed before real changes in performance management practices occur. A second type of hybrid occurs when a traditional company has significant global business, or has a substantial number of non-Japanese employees. The international-oriented employees are typically specialist contract employees rather than generalist permanent employees. The generalist permanent employees are managed in the traditional manner, while the specialist contract employees are more likely to be paid a higher salary but with limited corporate or individual performance bonus.

**Structural adaptations.** In the traditional Japanese companies we examined there was limited fundamental change in performance management practices.

We found another way to get the benefits of Western performance management without implementing it throughout the organization is through investing in speculative startups. These startups typically fall into the new economy Japanese model, adopting a primarily individual outcomes model of

performance management. However, when the investing company assigns staff to the startup, these staff remain under their parent company's performance management system and control.

Ownership and management structure influence the extent to which the hybrid firms shifted from traditional Japanese practices to Western performance management practices. Across our sample, it was clear that the factor most responsible for effective implementation of Western performance management was the number of non-Japanese executives and managers. One of the companies we examined had initially only installed a foreign CEO for an acquired firm, with over a decade passing without substantial changes. It was only after that CEO retired, and the replacement foreign CEO replaced all the directors and appointed a non-Japanese HR director did changes finally begin.

Overall, Western firms tended to operate closest to the Western performance management baseline, while new economy Japanese firms, particularly those with younger founders, also adopted a substantial number of Western performance management practices. By contrast, established Japanese companies still largely conform to the Japanese HR model, with changes largely restricted to separate international divisions when possible. When such a firm is acquired by a Western firm, changes in the performance management system tend to be minimal unless a significant number of non-Japanese managers are brought in to enact change.

*Increasing job-hopping and mid-career hiring.* Due to lifetime employment, mid-career moves by employees to another firm have traditionally been limited. However, mid-career hiring is increasing, although traditional Japanese firms still rely upon entry-level hiring and internal staff movements. Mid-career job hoppers are almost exclusively specialists, as generalist employees rarely have a skill set desired by other companies, and many traditional firms experience a net outward movement of mid-career staff. One junior HR manager at a traditional firm reported that senior leaders are experiencing stress as a result of this, as they are not accustomed to the challenge of managing talent retention.

Respondents identified three factors driving the rise in job-hopping: hiring by foreign and new economy Japanese firms, recruiting agencies, and changed expectations of young employees. New economy Japanese firms are open to mid-career hiring, and one reason put forward by respondents was that companies were explicitly modeling themselves after Silicon Valley firms. Another reason brought up by respondents was a need to hire staff with specific specialized skills sets, and a third reason was that younger firm founders and employees were less invested in traditional Japanese careers.

One of the fastest growing sectors of the Japanese economy is recruitment agencies, with growth between 5-9% annually (Ministry of Health, Labour and Welfare, 2018). One of our respondents, president of a leading foreign recruitment agency, reported company growth between 10% and 15% every year for the last 10 years. This exploding growth and greater shared information this has fostered

mid-career job-hopping, with employees job-hopping repeatedly. Almost universally, young professionals we interviewed commented on being frequently contacted by multiple job agencies. Among job-hopping employees, whether young or mid-career, the clear common characteristic was a universal desire for a specialist career.

**Pay and Bonuses.** Traditional firms employ generalists and pay wage rates plus a corporate bonus with little or no individual component, with specialists present in limited quantities. Within the new economy Japanese, hybrid and foreign firms, things are very different, with substantial mid-career hiring and young talent and specialists both viewed as essential. These recruits all demand higher salaries and greater individual recognition of contributions, due in part to the risks of not being long-term career employees. This has led to pay systems offering specialists positions with higher pay, and a performance management system with links to individual bonuses.

**Generalists and job rotation.** Upon being hired in a traditional Japanese company, young employees begin with up to a year of training, starting with extensive training in Japanese business etiquette. They are then assigned to their first job assignment, typically lasting two to three years. Over half of the young job-hoppers we interviewed said after this first assignment was when they left the traditional firm, either to avoid an unwanted job posting, or mainly to remain within the same functional specialty.

Foreign companies, as well as the new economy Japanese firms, have largely abandoned the practice of job rotation and generalist managers. The hybrid companies are moving away from generalists and towards specialists, but report difficulties with the generalists' ability to adapt. Three respondents, all managers with experience in multiple Japanese companies, reported the same problems associated with an over-reliance upon generalist managers. These generalists fixated on minutiae, called for excessive and unnecessary analysis of data, and lacked the deep functional expertise necessary to determine what was important. Specialists not only improve efficiency through eliminating wasted effort, but also focus on critical rather than minor issues.

**Labor market segmentation.** Young Japanese appear to be self-partitioning into two groups, one that values opportunities for rapid career growth, and the other that values security and stability. Those who value security and stability seek employment in traditional Japanese companies, where there is limited performance pressure. One manager at a traditional Japanese manufacturer stated that "most staff don't want to get promoted", estimating that fewer than 20% of staff wanted to get ahead, while employees "just want to be left alone."

**Performance-based rewards.** Performance-based rewards and promotions lie at the heart of the standard approach to performance management. Across our sample, the Western organizations all made use of individual performance rewards, with both managers and employees in agreement that

individual performance influenced pay and promotions. Within the traditional Japanese companies, the senior HR managers of a few firms stated that individual performance was being rewarded, yet mid-level managers and employees all agreed that individual performance has no influence upon pay, and an unknown influence upon promotions. One of the key reasons the hybrid firms hired large numbers of non-Japanese executives and managers was to effectively implement individual rewards, since the Japanese managers made only token attempts to appraise individual performance.

## DISCUSSION

The evidence from the interviews reported in this paper indicates that there are broader structural changes in the Japanese labor market which are not only influencing performance management practices in Japan but, are also having a wide-ranging impact on the overall approach to HR practices.

### *Performance Management in Japan is Slow to Evolve*

Our interviews indicate that companies and executives are aware of the need to move towards Western-style performance management. Progress in successful implementation remains elusive for traditional firms, and we have found that success in implementing these performance management practices is tightly intertwined with three changes in the labor market: increased job-hopping, growing job specialization, and the strengthening influence of new economy and non-Japanese companies and workers. All three of these changes act to reinforce the gradual introduction of individual rewards based upon explicit performance measures.

Japanese executives have realized the need for reform in Japanese HRM and performance management practices. However, experience has shown that these changes are rejected by the majority of Japanese managers and employees, so companies appear reluctant to implement wholesale changes to their HR systems. Instead, what is emerging is a dual-track HR system, as shown in Figure 3.

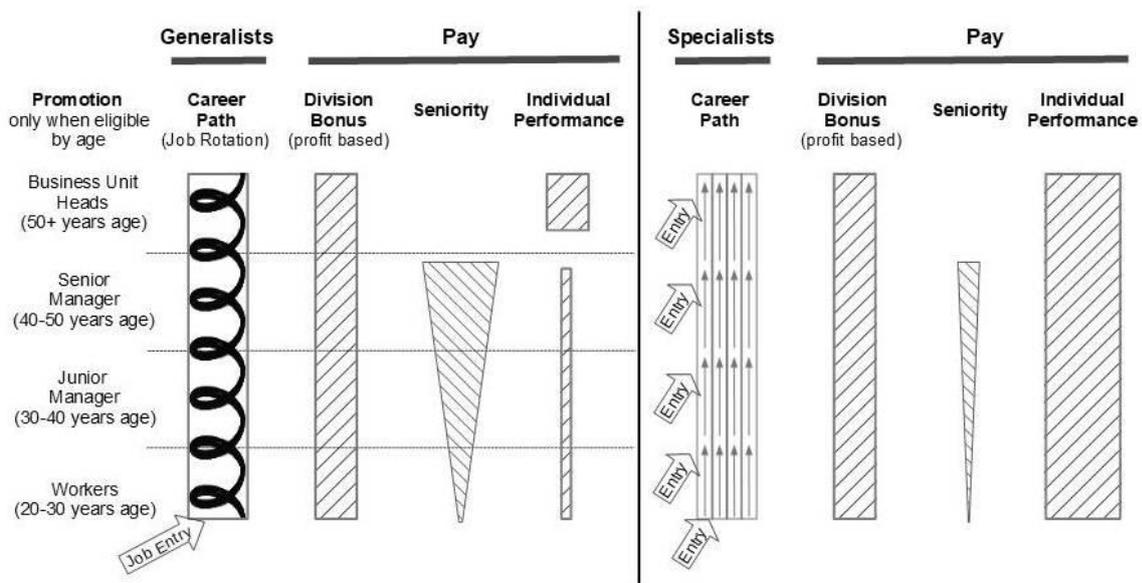


Figure 3: The New Dual-Track Japanese HRM System

One track is the traditional Japanese system of generalist permanent employees, with two primary changes. First, the company bonus is being redistributed into a division or department bonus, which varies with division or department performance and company profits. Second, there is a gradual broadening of the strict age windows for promotion, as well as relaxation of the small individual variable seniority pay increases. The other track is a more Western-style system for functional specialist contract employees who are often paid more than the generalists, and for whom individual performance bonuses can outweigh the divisional bonus received by all employees.

The four organizational types we identified (traditional, Western, hybrid, and new) can be differentiated by the relative importance of these two tracks. Western companies are typically comprised almost entirely of specialists, while traditional Japanese companies have only modest numbers of specialists. The hybrid companies are the ones shifting towards a greater emphasis upon specialists, and with an increasing proportion of the workforce under the specialist system. Finally, the new economy Japanese companies are young companies intentionally designed around functional specialists, and focused upon attracting ambitious young talents. The HR system of both hybrid and new companies show a variable mix of generalist and specialist tracks.

## CONCLUSION

The prevailing desire of Japanese workers for employment security over advancement, strong labor law protections, labor unions, and limited managerial talent in performance management are formidable factors to overcome, regardless of the recognition by executives of the need for reform. Traditional firms are likely to continue pursuing a two-track system, where international divisions and

employees, as well as functional specialists, are managed using individual performance based systems, with rewards and promotions tied to individual performance goal attainment. Foreign firms and new economy Japanese firms, particularly those with younger leadership, will continue to attract the ambitious young specialists who are less concerned about stability through their use of individual performance rewards.

Performance management practices in Japan are gradually becoming aligned with international practice, with foreign companies and new economy Japanese companies having a much easier time implementing individual focused performance management systems. The adoption of individual focused performance management systems appears largely driven by domestic labor market competition, particularly for functional specialists who are in great demand to improve operational effectiveness and efficiency. While a growing element of the Japanese workforce desires the rewards and opportunities provided by the individual-based performance management system, the majority of the Japanese workers still value security and stability, representing a significant obstacle.

Often executives at traditional Japanese companies understand the need for change, but experience resistance from labor unions, middle-management, and a majority of workers. Many traditional companies have made good progress at setting individual performance goals, but largely fail to act upon either goal attainment or shortfalls. In addition to a general resistance to these changes, a lack of professional managerial skills appears largely responsible for this lack of implementation success. We argue that the problem arises from the more fundamental issue of the generalist rather than specialist approach to professional and managerial jobs and careers.

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## UNDERSTANDING THE DECISION MAKING PROCESS UNDER UNCERTAINTY USING ARTIFICIAL INTELLIGENCE

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### ABSTRACT

To understand the decision making process is one of the main research topics for marketing practitioners and scholars. In this work, the authors use one of the artificial intelligent methods, the artificial neural network (ANN) to investigate the decision making process under uncertainty.

*Keywords: artificial neural network, uncertainty, nonparametric approach*

### INTRODUCTION

To understand the decision making process is one of the main research topics for marketing practitioners and scholars. The bulk of such studies investigates the relationship between the determinants and the outcome of the decision making process by asking the question what drives consumers to make such decisions? The conventional framework of cognitive evaluation process suggests that the utilization concept can be considered to understand the decision making process. Based on the cognitive comparison of alternatives, the utility will be ascribed a numerical value. Based on the numerical values of the alternatives, consumers make the final decision (Fishburn and Kochenberger 1979, Gonzalez and Wu 1999, Kahneman and Tversky 1972, Tversky and Kahneman 1992, Von-Neumann and Morgenstern 1944, Wu and Gonzalez 1996). In the framework of the expected utility theory and prospect theory, scholars try to define the curvature and the shape of the mathematical functions in utilization process to give more insights into decision making criteria and consumer references. The further development of the expected utility theory, i.e. the prospect theory, pointed out that the information referring to the decision making process, like the monetary value and probability of occurrence, will be distorted during the information processing. It indicates that the decision makers don't treat those factors linearly and they tend to overestimate some of them and on the other side underestimate the other (Gonzalez and Wu 1999, Wu and Gonzalez 1996).

However, the classical utilization approaches have some limitations. First, the decision making process is often oversimplified and it doesn't provide a valid and comprehensive description of the process (Hastie 2001). Second, the previous studies investigated such information distortion by

examining the impact of the independent variables separately. The interplay of the independent variables is unobserved in the previous research (Burke et al. 2018, Gonzalez and Wu 1999, Hertwig et al. 2004).

To fill this gap in the literature, this study addresses the question: can we use the artificial intelligent method to provide more insights into the distortion of the perception considering the interplay of the decision-relevant inputs? In this work, we apply one of the artificial intelligent methods, the artificial neural networks (ANNs), to review the previous study of Wu and Gonzalez, which also addresses the question of perception distortion in decision making process but without consideration of the interplay of the decision making factors.

The roots of ANNs can be found in computer science, engineering, mathematics, physics and astronomy, neuroscience and medicine (Hinton and Salakhutdinov 2006, Hochreiter and Schmidhuber 1997, Jones 1999, LeCun et al. 2015, Milo et al. 2002, Nielsen et al. 1997, Olden and Jackson 2002, Rubinov and Sporns 2010, Tu 1996). Yet, to the best of our knowledge, no prior research has shed light on the perception distortion using ANN model.

The content of this paper is organized as follows. After referring to literature on conventional utilization concept to investigate the perception distortion, i.e. expected utility theory and prospect theory, ANN model and its implementation in MATLAB will be introduced. Finally, we conclude the work by summarizing the findings, highlighting contribution of current research and providing directions for future work.

## **THEORETICAL AND METHODOLOGICAL BACKGROUND**

The term “utility” is used in normative and descriptive choice models to investigate the decision behavior (Inman et al. 1997). “Utility” is first introduced by Bentham. He defined utility as “the property of something whereby it tends to produce benefit, advantage, pleasure, good, or happiness (all equivalent in the present case) or (this being the same thing) to prevent the happening of mischief, pain, evil, or unhappiness to the party whose interest is considered.” (Bentham 1789) Marshall suggested that utility can be concerned with price which an individual is willing to pay to fulfill or satisfy his desire. Even though desire cannot be measured directly, we can observe indirectly the outcomes to which desire gives rise. The total utility can be described as the total pleasure or benefit that something yields an individual (1890). In the field of judgment and decision making, they are two main utility-oriented approaches that investigate the behavioral and cognitive process of information processing, i.e. expected utility theory and prospect theory.

Expected utility theory is used as the dominant normative and descriptive model to determine the decision making behavior under uncertainty (Inman et al. 1997, Schoemaker 1982). This approach

enables the integration of attributes and uncertainty. Within the framework of Von-Neumann and Morgenstern, they argued in favor of a cardinal view of utility. They assumed that individuals are rational and their preferences are well-defined. Each decision is related to a consequence of alternatives  $i$ , ( $i=1,,n$ ) with value  $x_i$ ,  $i=1,,n$ . The probability of the occurrence of the alternative  $i$  is  $p_i$ . The sum of the probability of the occurrence of all alternatives equals one,  $\sum_{i=1}^{i=n} p_i=1$ . The individual preference of the choice can be viewed as the utility of the bundle of alternatives  $x_i$ ,  $i=1,,n$  with the probability  $p_i$ ,  $i=1,,n$  can be written as:  $\sum_{i=1}^{i=n} u(x_i)p_i$ ,  $i=1,,n$ . The theoretical support for this multiattribute modeling can be found in the literature of Fishbein (Fishbein and Ajzen 1975).

However, several empirical surveys challenged the basic tenets with various paradoxes which are not correspondent to the findings of expected utility theory (Allais 1953, Kahneman and Tversky 1979). Kahneman and Tversky introduced prospect theory and its key tenets: (1) a utility function (in deterministic setting, the utility function also called value function (Smeulders et al. 2019)) is concave for gains and convex for losses. It implies that  $u''(x_i)\leq 0$  for  $x_i\geq 0$ ,  $u''(x_i)\geq 0$  for  $x_i\leq 0$  and  $u'(x_i)<u'(-x_i)$  for  $x_i\geq 0$ . (2) The observation should entail decision weights, which can be interpreted as the distortion of probability. People tend to overweight small probabilities and underweight moderate and high probabilities. Moreover, a decision weighting function should fulfill the principle of diminishing sensitivity, which implies that individuals are decreasingly sensitive to changes further away from the reference point. Thus, a decision weighting function should be concave near 0 and convex near 1. (3) Losses and gains can be treated as a magnitude of change (negative or positive) from a reference point, which can alter. The final utility should be defined on gains and losses rather than on the final results (Kahneman and Tversky 1979). This approach is applied for empirical predictions in various domains in the context of uncertainty (Benartzi and Thaler 1995, Goette et al. 2004, Jullien and Salanié 2000). In the literature, different utility functions are proposed to investigate utility-oriented decision process (Cobb and Douglas 1928; Pratt 1964; Varian 1992).

The distortion of the possibility of the occurrence of an alternative ( $p_i$ ) is expressed by the inverse-S-shaped probability weighting functions  $q(p_i)$ . The estimated utility of an alternative can considering the information distortion be written as  $\sum_{i=1}^{i=n} u(x_i)q(p_i)$ ,  $i=1,,n$ .

However, those conventional utilization concepts assume a certain form of utility function in advance without justification. This is not in agreement with the proposition that the decision making process under uncertainty is indeed a black box model and a previous assumption of functional forms is not appropriate.

Therefore, we choose ANNs to investigate this decision making problem instead of the conventional approach. ANN method is an established method to investigate black box models in neuroscience,

engineering, physics ect. (Hochreiter and Schmidhuber 1997, Jones 1999, LeCun et al. 2015, Rubinov and Sporns 2010).

## **ARTIFICIAL NEURAL NETWORK (ANN)**

In 1934, McCulloch and Pitts introduced neurological network model and showed in their paper even simple networks could be employed to calculate any logic or arithmetic function (McCulloch and Pitts 1943). This can be seen as the beginning of neural network in the scientific community. ANNs enable us to scale the real-world tasks and to find solutions to explain behavioral patterns and performances. ANNs simplify the biological neural network and is one of the data-driven modeling techniques. More precisely, ANNs can be trained to investigate the relationship between the inputs and outputs based on given data sets without any previous mathematical or distributional assumption.

ANNs are viewed as a system of connected artificial neurons. In ANNs, the process of biological neural network will be reproduced with connected artificial neurons (components of network layers). Mathematical functions (propagation function and activation function) represent the strengths of neural connections and activation level of neurons.

The procedure of signal transformation in ANNs begins with an input or stimuli. It will be transferred to neurons in the input layer of ANNs. Like the biological neurons, the strengths of connections between artificial neurons are different. The connecting weights will be stored in the propagation function. The received signal will be transformed into network input using the activation function, also called transfer function. The network signals will pass through hidden layers and then arrive the output layers.

ANNs are considered universal approximators (Kolmogorov, 1957). Based on this theorem, it was proven that regardless of the activation function and the dimension of the input space, a neural network with one hidden layer can approximate any continuous function arbitrarily well (Hornik et al. 1989). ANNs with bias, a nonlinear and a linear output layer are capable of approximating any function with a finite number of discontinuities. This approach enables us to investigate black box models without any previous justification.

Given input and output (in MATLAB: target) data, ANNs can be trained in a so-called supervised learning process. In each learning step, the weights in propagation function will be adapted to minimize the learning errors. The adaptive changes of weights follow the learning rule determined by learning algorithms (e.g. Levenberg-Marquardt backpropagation algorithm in next section). Mean squared error (MSE) can be applied to measure the ANN model fit.

Among different architectures of ANNs, a multilayer feed-forward neural network (MFNN) consisting of three layers (input, hidden and output layer) is proposed in this paper. An ANN with  $n$

$(x_i, i=1, n)$  inputs is considered.  $w_{i,j}$  implies the weights of the connections between inputs and the input layer, which consists of  $m$  neurons ( $j=1, m$ ). The absolute value of  $w_{i,j}$  indicates the strengths of the connections and those connections can be excitatory (positive  $w_{i,j}$ ) or inhibitory (negative  $w_{i,j}$ ).  $b_j$  is bias, which influences the network signal  $net_j$ , but is not a part of input. It can be seen as a linear shift of  $\sum_{i=1}^{i=n} x_i w_{i,j}$ . The network signal  $net_j$  is represented by the propagation function in terms of inputs, weights and bias,  $net_j = \sum_{i=1}^{i=n} (x_i w_{i,j} + b_j)$ . Depending on the activation level of neurons, the network signal is transmitted related to the activation function  $a_j = f(net_j) = f(\sum_{i=1}^{i=n} (x_i w_{i,j} + b_j))$ .  $a_j$  is then passed to neurons in the output layer, expressed as an output function  $o_j = g(a_j)$ . Generally, the output function is defined as the identity function,  $g(a_j) = a_j$ .

The training of ANNs is based on the input-target data in supervised learning process. Thence, the training data should cover a wide range of possible conditions of the observed black box models. Weights and bias are adaptable in the whole training process. Once ANN is trained, the knowledge of the ANN is stored in weights and bias and can be used for further prediction.

## REALIZATION IN MATLAB

MATLAB (MATrix LABoratory) is a programming platform with matrix-based programming language. This language allows the most natural expression of computational mathematics. MATLAB enables scientists to analyze data, develop algorithms, create models and applications. Among a huge range of applications, MATLAB can provide multiple approaches to explore machine learning and deep learning.

The default activation functions in artificial neural networks in MATLAB include Hard-Limit transfer function, linear transfer function, log-sigmoid transfer function and hyperbolic tangent sigmoid transfer function. The last three are differentiable and strictly monotone. Furthermore, Hard-Limit, log-sigmoid and hyperbolic tangent sigmoid transfer functions are bounded. Additionally, the value of hyperbolic tangent sigmoid transfer function ( $f(x) = \frac{2}{1+e^{-2x}} - 1$ ) ranges from negative to positive domain. Based on those features of hyperbolic tangent sigmoid transfer function, it is applied in the further discussion and data analysis in this work.

The differentiability of the activation function indicates that a small change in output  $o_j$  from a neuron can be represented by a small change in weights  $\Delta w_{i,j}$  and in bias  $\Delta b_j$ . It implies:

$$\Delta o_j \approx \sum_{i=1}^{j=m} \Delta w_{i,j} \frac{\partial o_j}{\partial w_{i,j}} + \sum_{j=1}^{j=m} \Delta b_j \frac{\partial o_j}{\partial b_j} .$$

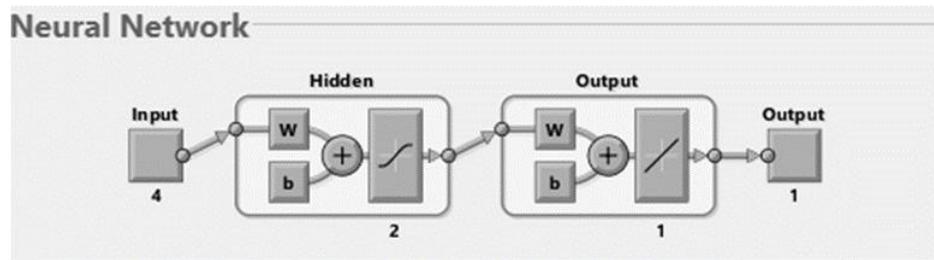
On the strength of quickness and stable convergence, Levenberg-Marquardt algorithm is selected to train the ANN in the next section. Levenberg-Marquardt algorithm, bayesian regularization and scaled conjugate gradient are considered to belong to the family of backpropagation algorithms. Those

learning algorithms consist of two different parts: feed-forward and backward pass. The signals are passed feed-forward and the output errors are propagated backward to adjust the weights and bias of ANNs. They are employed to minimize nonlinear functions. For training small- and medium-sized problems, Levenberg-Marquardt algorithm is more convenient than the other two (Hagan et al. 1996, p. 437–439). In this algorithm,  $w_{ij}$  and  $b_j$  will be adapted ( $\Delta w_{ij}$   $\Delta b_j$ ) after every learning epoch. The output error can be traced back to learning process in ANNs, in other words, the aggregate output error is splitted up into partial errors related to the weights of the connections.

To implement the decision making process using ANNs in MATLAB, we use the data set from the work of Gonzalez and Wu (Gonzalez and Wu 1999) due to following considerations: 1) their work focuses on the perception distortion in decision making under uncertainty through the probability weighting function and the value function with respect to the nonparametric estimation. 2) the empirical test is conducted with simplified stimuli including merely the occurrence probability and the monetary value of lottery alternatives. 3) this nonparametric approach does not assume any functional forms. It makes this approach comparable with ANNs. 4) their work addresses also the question, whether the perception distortions in decision making process under uncertainty exist at the aggregate level. 5) the generality of the finding is not the focus, but the description of the distortion phenomenon in the decision making process.

The experiment design in their study includes 15 two-outcome lotteries crossed with 11 different probabilities associated with the outcomes. All lotteries offer nonnegative outcomes. After the presentation of each lottery alternative, participants should choose a certainty equivalent for this lottery. The certainty equivalent is viewed as the perceived value of the lottery based on its probability and monetary outcomes. Consistent with Wu and Gonzalez, we implement the probability (high and low) and monetary outcomes (high and low) as input matrix. For instance, a lottery offering a 25% chance to win 100\$ and a 75% chance to win 0\$ will be implemented as the input vector (100, 0, 0.75, 0.25). The output data of our ANN model consists of the perceived value, i.e. the certainty equivalent, which is asked at the end of the experiment.

There are no general rules about the determination of the numbers of neurons and layers. Basically, the more complex the system, the more layers and neurons will be involved. We follow the recommendation in the previous literature (Møller 1993) and employ a two-layer ANN with 2 neurons on the first layer and 1 neuron on the second layer to analyze the data set, see Figure 1. In this study, the ANN model consists of an input matrix  $4 \times 154$  and an output matrix  $1 \times 154$ .



**Figure 1. ANN structure**

In Figure 1,  $w$  symbolizes weights and  $b$  bias in the ANN model. Hyperbolic tangent sigmoid function is chosen as the transfer function for the first layer and the pure linear function ( $f(x)=x$ ) for the second layer. The available data set is divided randomly into training, test and validation data set. In our case, 70% of the data set (108 samples) are set to be training data, 15% (23 samples) test data and 15% (23 samples) validating data.

Figure 2 shows the regression plot of the ANN model. Regression  $R$  values measure the correlation between outputs and target. An  $R$  value of 1 means a close relationship, 0 a random relationship. The result of model fit of the ANN after 69 iterations is represented in Table 1.

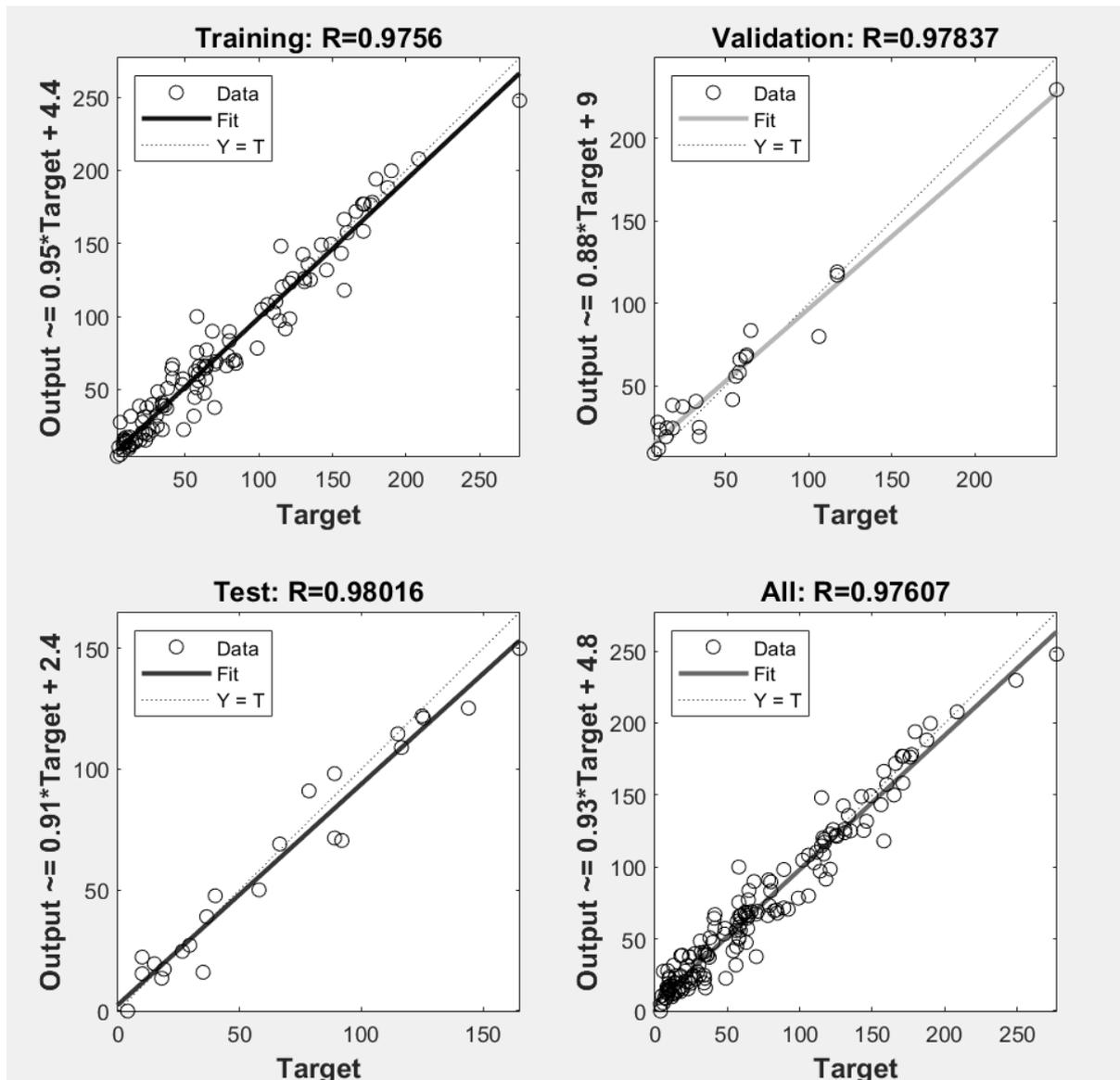


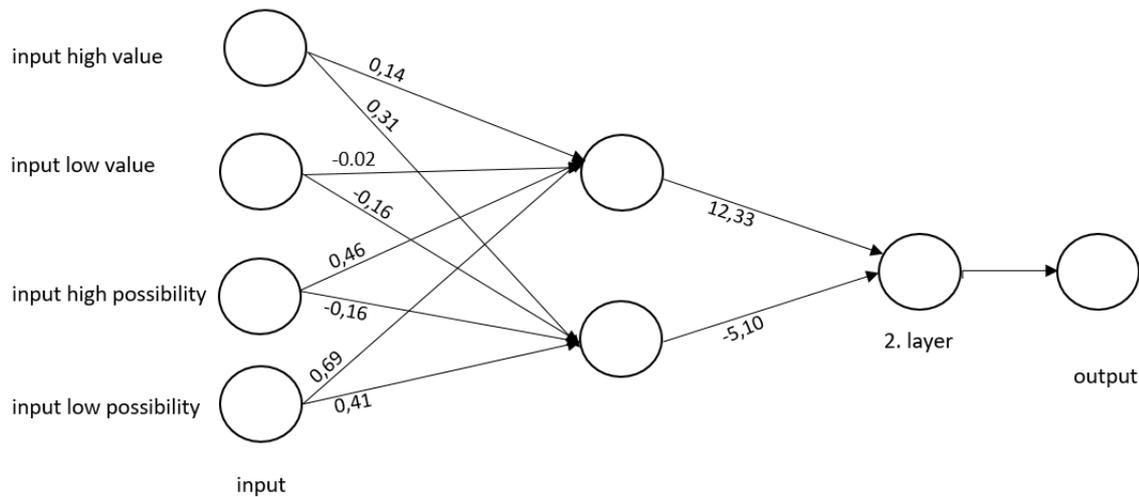
Figure 2. MATLAB Regression Plot

| Set        | Samples | MES       | R        |
|------------|---------|-----------|----------|
| Training   | 108     | 165.29934 | 0.9756   |
| Validation | 23      | 145.78205 | 0.978366 |
| Testing    | 23      | 105.09137 | 0.980155 |

Mean squared error (MSE): the average squared difference between outputs and targets

Table 1: Model fit

The following figure shows the result of the connection weights in ANN model. Both excitatory and inhibitory connections can be identified in our ANN model.



**Figure 3. ANN result**

The connections between the input low value and the artificial neurons in the first layer are both inhibitory, which gives evidence of the underestimation of the input low value. On the other side, between the input high value and the artificial neurons in the first layer exist excitatory connections, which implies the input high value will be overestimated in the decision making process. This finding is not in agreement with the result of Wu and Gonzalez (Gonzalez and Wu 1999), since they proposed the concave shape of the value function. Furthermore, they argued that the low value is always overestimated and oppositely, the high value always underestimated.

The input high possibility is connected with the artificial neurons in both inhibitory and excitatory way. However, the magnitude of the positive connection weight is larger than the negative one. Moreover, the connection weights of the input high possibility are smaller than those of the input low possibility. It means that the overestimation degree of the low possibility is larger than that of the high possibility. In the decision making process under uncertainty, people tend to overestimate the low possibility much more than the high possibility. It is consistent with the finding of Wu and Gonzalez (Gonzalez and Wu 1999).

Since the interplay of the perception of the possibility and the monetary value is also included here, this could explain the finding differences between the previous study and our study. We encourage the scholars to examine this in the future study.

## SUMMARY

Modeling individual choice preferences, considering the effect of uncertainty on multiattribute preference model, improvement for the implementation of the dynamic choice model.

In this work, we presented the approach to model the decision making process under uncertainty in the framework of ANNs. The result shows that ANNs can reveal more behavior patterns with respect to the information perception based on both the independent variables and the interplay of them. It fills the gap in the previous research, which deals with the independent variables separately.

After the review of the body of research on classical utilization concepts, this research shows that an ANN is a powerful approach to investigate a black box model descriptively.

There are several remarkable advantages of ANNs. First, it takes the biological neural network as a role model. It simplifies, but doesn't oversimplify, our decision making process. Second, it doesn't require the assumption of any functional form in advance. The unobservable part of a black box model is reproduced by the connected neurons and mathematical functions. This enables ANNs to explore a black box model in an appropriate way. Moreover, the weights and bias information can be stored as knowledge in ANNs and this provides a simulation basis for further prediction. Marketers can benefit from applying trained ANNs sustainably.

This work represents the first insights in modeling the decision making process under uncertainty in ANNs. However, several limitations of this work should be pointed out. Our finding cannot be generalized yet, without consideration of over-fitting and under-fitting of the ANN model. The over-fitting occurs if the statistical variance between the actual output and the target output is high. On the other side, a high level of the statistical bias implies the under-fitting situation (Turkson et al. 2016). We encourage scholars to investigate the generality of the ANN model taking the over-fitting and under-fitting into account.

Additionally, there are no decision rules about the number of layers and neurons involved in ANNs. The increasing numbers of layers and neurons enhance the network complexity and calculation time, but it can provide a more accurate prediction compared with networks with low numbers of layers and neurons. However, the choice of the required number of neurons should be considered carefully in terms of over-fitting and under-fitting effects. An over-fitted ANN has weak capability of generalization, which indicates that it can provide precise predictions of given learning data sets and the generalization in other context will yield large errors. The question for the further research is how to find the balance between the numbers of computational neurons and system accuracy?

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## THE ACCOUNTING REGULATION OF PPPS UNDER IFRIC 12: STATE OF THE ART

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### ABSTRACT

IFRIC 12 has been approved by the European Commission with EC regulation no. 254/2009 on March 25, 2009; it has profoundly changed the accounting of concessions, especially in the event that the grantor has control over the infrastructure used by the concessionaire for the provision of public utility services. This accounting change assumes particular importance in the Italian economic reality in which many public utility services, also through privatizations carried out during the nineties, have been entrusted to private-law companies through concession contracts. IFRIC 12 applies to service concession arrangements between a public sector entity (grantor) and a private sector entity (concessionaire) if the following conditions are met:

- a) the grantor controls or regulates which services the concessionaire must provide with the infrastructure, to whom it must provide them and at what price;
- b) the grantor controls - through ownership or otherwise - any residual interest in the infrastructure upon expiry of the agreement.

The objective of this contribution IFRIC 12 is to provide clarifications on the accounting model to be adopted in the dealer's financial statements to detect and evaluate the obligations and rights connected with the agreements for concession services. The European Commission under IFRIC 12 adoption, clarifying that the PPPs consist of forms of cooperation between public and private entities that aim to guarantee the financing, construction, management of a restructuring or maintenance of an infrastructure or the provision of a service. The main advantage that derives from the involvement of the private sector in the management of a public service is that the public body must not use its own resources in financing the operation of a public service.

*Keywords: Public Private Partnerships (PPPs), Accounting Regulation, IFRIC 12, Service Concession Arrangements.*

## 1. THE PROJECT-FINANCING SYSTEM

The project financing system is included in the construction and management concession, that is, the construction of public works without financial charges for the public administration; it is configured first of all as a complex economic-financial operation aimed at a specific investment for the construction of a work and / or the management of a service, on the initiative of private or public promoters. It is therefore a structured financing method also used for some PPP operations (Vacca, Solustri, 2003).

Project financing was introduced for the first time in Italy in the regulation of the public works contract by Law 415/1998, the so-called Merloni-ter law, with the inclusion of articles 37-bis to 37-nonies in Law 109/1994, so-called framework law on public works. This standard had the merit of having defined the procedure to be followed for the financing of public works by private individuals, transforming the PF from an instrument reserved for the construction of large infrastructure works to a normal technique of public action, also in its territorial expressions multiple peripherals (Lepore, 2010).

A definition of this method is that given by NEVITT in 1998, according to which PF means the "financing of a specific economic unit, usually the so-called project company, through an operation in which the lender considers the flow of cash and profits from project management as collateral for debt repayment and economic unit assets as collateral ". The PF, therefore, is a multi-disciplinary approach to financing particularly complex investments, characterized by the possibility of resorting to a high involvement of loans from the banking sector and in which the revenue flows deriving from the management of an infrastructure are sufficient for coverage of management costs, repayment of the loan and return on invested capital; in addition to the relevance that the private individual has regarding the financing and management of a public infrastructure (Cori, 2007).

Project financing therefore consists of financing a project suitable to generate, in the management phase, sufficient cash flows to repay the debt contracted for its realization as well as to remunerate the risk capital. The operation is normally developed through the use of a newly created company, the project company, which has the task of carrying out and managing the project. The advantage of establishing a new company is represented for the private individual by the fact that, since it is a subject legally distinct from the promoter, the capital invested remains separate from the other activities of its members and therefore with a precise delimitation of the risk for the company. project (Sambri, 2012).

Project financing integrates a financing technique characterized by private contributions. A project financing operation can be divided into three phases (Falini, 2008):

- Design and construction (in this phase the financial resources are guaranteed by the financing institutions in favor of the project);
- Start-up (checks whether the project is suitable for generating cash flows through the verification tests);
- Operational management (the project begins to generate cash flows).

The works that can be subject to project financing can be distinguished as follows (Ricciardi, 2014):

- Hot works: Initiatives in which revenues allow the private individual to fully recover investment costs over the life of the concession. Involvement of the public sector limited to identify the necessary conditions to allow the realization of the project;
- Lukewarm works: Initiatives whose user revenues are in themselves insufficient to generate adequate economic returns, but whose realization generates significant positive externalities in terms of social benefits induced by the infrastructure. These externalities justify the provision of a public contribution component;
- Cold works: Initiatives - prisons, hospitals, schools - for which the private entity that realizes and manages them derives its remuneration exclusively (or mainly) from payments made by the public administration.

The PF has undergone many changes; in the Official Gazette no. 231/2008 the legislative decree n. 152/2008, legislative intervention which continues the gradual revision of the Procurement Code and aims to pursue (Grementieri, 2009):

- conditions of competition between economic operators;
- enhancement of the appropriate tools to ensure the transparency of the procedures, with the possibility of verifying the legitimacy of the work of the contracting stations and of the other parties involved;
- streamlining of procedures, for the benefit of transparency and market opening.

Among the main changes made, particular attention is paid to project finance. The regulatory definition of project financing is contained in Article 153 of the Code: realization of public works or public utilities through concession contracts, with resources totally or partially borne by the promoters themselves. The third corrective reintroduces the right of first refusal limited to some hypotheses, which can be activated on the initiative of the Administration or private individuals. According to the new text, "contracting authorities may, as an alternative to awarding a concession pursuant to Article 143, award a concession by placing a feasibility study as the basis for the tender, by publishing a notice for the presentation of tenders which contemplate the use of resources totally or partially at the expense of the proposing parties "(Grementieri, 2009).

In our country, the expression project financing (or in Italian "project finance") has been frequently used to define a particular form of PPP, at the base of which a concession contract for the construction and management of a public work is placed. or of public utility. Project financing in Italy has taken hold mainly in public utility works. In this sense, the promoters are called upon to submit a proposal to the public administration to finance, execute and manage a particular public work that has already been approved or will be approved within a short time. However, there are differences between project finance in Italy and what it represents in its more classic definition. In particular, while project financing provides for an equitable distribution of risk between the promoter and the banks, in Italy the risk is assumed almost exclusively by the promoter (Gennari, Monosilio, Coloparti, Tempesta, 2012).

## 2. THE CONCESSIONS

The public works concession contract represents the most widely used form of contractual PPP.

The term "concession" has been used in many meanings and indicates various figures of measures. The "common nature of these measures is the effect of conferring on one or more persons outside the administration new capacities or new powers and rights, from which their legal sphere remains expanded" (Rizzo, 2012). The concessions are affirmed in our system in meeting the need of the private company to derive profit from the exclusive management of assets held in the hands of the public and the need of the State to obtain, on the one hand, the direct results measurable in terms of works and services intended for the public and on the other the indirect result of the decrease in unemployment thresholds and the increase in overall national production (Napolitano, 2008).

Ranelletti, in his work "General theory of authorizations and administrative concessions", published in the late 1800s, was the first attempt to systematically construct the matter. The author studied the institution of administrative concessions and authorizations: "with authorizations, an obstacle is removed that prevents the exercise of rights that the private owner already has; with concessions new rights are granted to the private individual. The distinction is simple and clear, but it is not entirely satisfactory, because it is not always true that the private individual, before asking for authorization, and in order to ask for it, is (already) the holder of a subjective right, and because the concession does not always creates new rights; but it determines the purchase of different utilities. Ranelletti reconstructed all the concessions in terms of unilateral acts, put in place "by the sole activity of the authority that issues them", following the private request.

The private individual, with his own declaration of "availing himself of the concession" or with the

participation in the public deed or with "giving the security", accepts the concession with the consequent obligation to "respect all conditions", but does not change the legal nature of the institution (Rizzo, 2012).

### **3. THE CONCESSION IS THEREFORE A FORM OF FUNCTIONAL PRIVATIZATION**

The expression "functional privatization", in fact, really wants to highlight the propensity of the PA to create public services, changing the tools and management logic of private companies (Gianfelici, 2008). The ways in which functional privatization is carried out is precisely that of granting (licensing) or outsourcing certain contracted tasks (contracting-out). These procedures do not transfer ownership of the assets to the private sector, but only management, i.e. the opportunity to act in certain contexts for a certain period of time. To achieve the objectives of functional privatization (minimizing the costs of the services offered by the private operator to the public one) it is necessary to correctly manage the tender to avoid that a private monopoly replaces the public monopoly. With the concessions there is a temporary assignment of the monopoly for the production, or distribution of a good or service to a specific economic entity which, by completing a tender, was the most suitable to guarantee the best quality-price combination. The contract represents the assignment in management to public or private operators of activities financed with public funds (Fazioli, 2013). What causes problems is the legal nature of concessions. The doctrine was divided into two: on the one hand the supporters of the publicity approach (concession as a unilateral administrative act - administrative measure) and on the other the supporters of the private approach (concession as a contract) (Raganelli, 2017).

Halfway between the two approaches is the concession-contract theory. This case arises from the confluence of a unilateral act (the concession) and an agreement supplementing the content of this having a private nature, that is, a bilateral contractual relationship which is the source of obligations and mutual rights of the granting entity and the private concessionaire. The concession holders exercise special rights on goods and activities not available to private individuals and reserved for public authorities (De Giorgi Cezzi, 2011).

### **4. THE CONCESSIONS IN THE LEGAL SYSTEM**

The law 24 June 1929, n. 1137 , distinguished two types of concession: the construction-only concession and the construction and management concession. The first consists in the administrative act with which a PA entrusts a subject with the task of building a public work within a certain term and for consideration; the second instead, is the administrative act with which the PA entrusts a subject with the task of building a public work and managing it for a specific period of time, at the end

of which, the work becomes the property of the administration . In particular, the law of 8 August 1977, n. 584 equated the construction-only concession to the contract and subjected it to the same procedural and legal regime (Raganelli, 2017).

In Italy, the process of reforming the discipline of public works begins with the framework law on public works, no. 109/1994 (Merloni) ; it sets out uniform guidelines and principles which inspire the administrative activity in the procurement sector and defines a new discipline of the matter, extended to the entire cycle of construction of public works, from programming, to planning, to awarding, to execution some jobs. The law also tends to act as a general source and, in order to prevent subsequent regulations from compromising, through derogations or implicit changes, the certainty of the legislative framework, provides that any "derogations, changes or repeals" of the rules contained therein may only be arranged "for an express statement with specific reference to individual provisions" of the same law. it continues with the law 18 November 1998 n. 415 , (Merloni-ter) , with the law of 2002 (Merloni-quater) ; the of the Code public contracts in 2006 and the 2016 Procurement Code (Bonacci, 1995).

Taking a step back, as far as the concession of public works is concerned, this took place with the EU directives 93/37 / EC on public works contracts, and subsequently with the directives 17 and 18/2004 / EC in which it is regulated by the inside the contract (Di Giovanni, 2012).

Article 1, paragraph 3, of the unified directive 2004/18 / EC (on procurement), indicates the definition of concession of works as a contract with characteristics similar to the contract, except for the fact that the consideration consists only in the right to manage the work, accompanied by a price (Raganelli, 2017). As regards the concession of services, however, the evolution of the institution passes between the Commission's interpretative communication on services (OJEC 29 April 2000, C. 121 ) and the jurisprudence of the Court of Justice (7 December 2000 C-324 / 1998) , on the basis of which, service concessions are subject to the general principles of Community law on the freedom to provide services, such as transparency, competition, equal treatment, impartiality, proportionality and advertising (Di Giovanni, 2012).

In Italy, the regulations in force regarding concessions are contained in the 2016 Procurement Code, Legislative Decree no. 18 April 2016, no. 50 , implementation of directives 2014/23 / EU, 2014/24 / EU and 2014/25 / EU on the award of concession contracts (Raganelli, 2017). Before examining the new legislation introduced by Legislative Decree No. 50/2016, it is advisable to know the discipline dictated by Legislative Decree 163 of 2006 . This code of public contracts deals with distinguishing the concession of "works" from that of "services", placing the definitions in two distinct paragraphs of article 3:

- (paragraph 11) "public works concessions" means "a contract for consideration entered into in writing pursuant to which one or more contracting authorities entrust the execution of works or the executive design and execution, or the final design , the executive planning and the execution of works to one or more economic operators, recognizing as a consideration only the right to manage the works covered by the contract or this right accompanied by a price, with assumption by the concessionaire of the operational risk linked to the works management ».

- (paragraph 12) "service concession" means: "a contract for consideration entered into in writing pursuant to which one or more contracting authorities entrust one or more economic operators with the supply and management of services other than the execution of works referred to in letter II), by way of consideration, only the right to manage the services covered by the contract or this right accompanied by a price, with assumption of the operational risk linked to the management of the services by the concessionaire ".

Pursuant to the provisions of art. 143, paragraph 9 of the Code, fully include the notion of "public works concession" both the hypotheses where the concessionaire assumes, in addition to the construction risk, the "demand risk" (highway model), as well as the concessions in which the risk of availability is added to the construction risk (model hospitals, prisons, etc.).

The internal legislator also, with the rule of art. 30 of Legislative Decree no. 163/2006 , established that the only pre-established rules governing the granting of services were those contained in the same art. 30 , pending the declared inapplicability, to this type of negotiation, of the other provisions of the Code (Lucca, 2015). The Code of Contracts has been replaced by the 2016 Procurement Code, issued with the d.gls. April 18 2016, n. 50 ; it provides for a transitory regulation, in the transition from the old to the new Code, to give certainty of reference to the contracting stations and the subjects involved.

The Government therefore transposes the public procurement and concessions directives into a single decree and reorganizes the regulations in force regarding public contracts relating to works, services and supplies and concession contracts.

The procedural rules for each type of contract are governed: contract, concessions, other types such as in-house, general contractor, public-private partnership instruments, including in the latter project financing, horizontal subsidiarity tools, administrative barter. For the first time the new Code addresses the institution of the concession in an organic way; a uniform regulation is provided for the concessions of works, services and supplies, clarifying that the concessions are contracts of duration, characterized by the operational risk for the concessionaire in case of non-economic return on the investment made (Interlandi, 2016).

Legislative Decree 18 April 2016, n. 50 has undergone the latest changes with the law 58/2019 ; it regulates the procurement and concession contracts of contracting authorities and contracting entities concerning the acquisition of services, supplies, works and works, as well as public design competitions (Furcolo, 2019). EU Delegated Regulations nos. 1827, 1828, 1829 and 1830 , published by the Commission in the Official Journal of the European Union on 10/31/2019 , modify the European thresholds for public procurement and concessions.

The new thresholds apply, as specified in the regulations, from January 1, 2020. The regulations modify the thresholds of European relevance in relation to procedures for the award of public contracts and concessions.

In particular, Regulation 2019/1827 amends Directive 2014/23 / EU on concessions.

Regulation 2019/1828 amends Directive 2014/24 / EU on procurement in ordinary sectors. Regulation 2019/1829 amends Directive 2014/25 / EU on procurement in special sectors. Lastly, Regulation 2019/1830 amends Directive 2009/81 / EC on procurement in the defense and security sectors (Facondini, 2019).

## **5. PPP FAILURE: SOME CASE STUDIES**

The use of PPP by municipalities assumes an increasingly significant importance over time, reaching 67% of the value of public works notices of municipal administrations in 2016.

However, the potential of this market is hampered by some critical elements. First, the long time between the publication of the notice and the award time during the game , but although the technical and design quality deficiencies on the part of contracting authorities can determine the failure of the initiative.

In fact, compared to about 33,164 PPP procedures detected and archived by the National PPP Observatory, between 2002 and 2016, the "interrupted proceedings" concern 4,429 procedures, equal to 13%, with peaks of over 30% in the case of calls with a unit value over 15 million euros (Giorgio, Marinuzzi, Tortorella, 2018).

**Table 1: PPP market: interrupted proceedings, by amount class, 2002-2016**

| Classe di importo dei bandi PPP | Numero                      |                           |              | Importo (mln euro)          |                           |              |
|---------------------------------|-----------------------------|---------------------------|--------------|-----------------------------|---------------------------|--------------|
|                                 | Procedimenti interrotti (a) | Procedimenti attivati (b) | (a/b)        | Procedimenti interrotti (a) | Procedimenti attivati (b) | (a/b)        |
| Importo non segnalato           | 1.183                       | 12.690                    | 9,3%         | -                           | -                         | -            |
| Fino a 150.000 euro             | 666                         | 8.133                     | 8,2%         | 41                          | 413                       | 10,0%        |
| Da 150.001 a 500.000 euro       | 579                         | 3.757                     | 15,4%        | 176                         | 1.099                     | 16,0%        |
| Da 500.001 a 1.000.000 euro     | 362                         | 1.981                     | 18,3%        | 270                         | 1.463                     | 18,5%        |
| Da 1.000.001 a 5.000.000 euro   | 904                         | 4.244                     | 21,3%        | 2.257                       | 10.320                    | 21,9%        |
| Da 5.000.001 a 15.000.000 euro  | 411                         | 1.433                     | 28,7%        | 3.517                       | 12.142                    | 29,0%        |
| Da 15.000.001 a 50.000.000 euro | 208                         | 611                       | 34,0%        | 5.444                       | 15.718                    | 34,6%        |
| Oltre 50.000.000 euro           | 116                         | 315                       | 36,8%        | 36.607                      | 95.987                    | 38,1%        |
| <b>Totale</b>                   | <b>4.429</b>                | <b>33.164</b>             | <b>13,4%</b> | <b>48.312</b>               | <b>137.142</b>            | <b>35,2%</b> |

Source: IFEL-Department of Territorial Economics Studies elaboration on infoppp.it data, various years in "Italian municipalities and the Public Private Partnership" (2018)

### 5.1 Motorway concessions and "Ponte Morandi"

The Polcevera Viaduct, also known as Ponte Morandi, was designed by the engineer Morandi in 1960 and later built by the Italian Society for Water Pipelines in Genoa, on the Polcevera Valley. The bridge was granted in concession to Autostrade per l'Italia, as it was positioned on the route belonging to the Italian A10 motorway. It is a strategic viaduct as it is the main link in Genoa, easy to access to the Voltri-Prà container port and to the Cristoforo Colombo airport. The engineer devised a prestressing system called "Morandi M5" which he used for some of its structures; but the most peculiar note was represented by the structure with balanced trestles that was applied by the same to the General Rafael Urdaneta bridge in Venezuela. This bridge, inaugurated in 1962, collapsed in 1964 due to an accident caused by an oil tanker which hit the batteries designed for the naval passage; but such an event had not been foreseen. The Morandi bridge was nicknamed the Brooklyn bridge because, twenty years after the inauguration, metal cables (stays) were added to avoid the collapse of the structure (Laino, 2018) .

"(ANSA) - Rome, 14 August 2018 - Bridge collapses on the highway in Genoa: both roadways have fallen, there are fears of means involved" (ANSA, 2018 , 1).

The collapse of the bridge was immediately interpreted as enormous damage to the economy and tourism of Liguria. The listing on the stock exchange of Atlantia, a group owned by Autostrade,

immediately fell by 4.5%. The stock market crash, however, was not the only consequence of the crash; in fact, the Italian government immediately expressed its intention to revoke the concession to Autostrade per l'Italia. However, Atlantia immediately ruled on this which saw the probable revocation unjustified, as the causes of the tragedy had not yet been defined. The government's decision regarding highway concessions not only frightened the responsible group, but the entire highway sector, which on the same day closed its quotations on the stock exchange in red (ANSA, 2018, 2).

## 5.2 Motorway concessions towards revocation

The Milleproroghe decree, in art. 35 provides for a new procedure in case of revocation of the motorway concession: " In the event of revocation, revocation or termination of road or motorway concessions, including those subject to toll, pending the tender procedures for the assignment of a new concessionaire, for the time strictly necessary for its identification , ANAS Spa, in implementation of art. 36, paragraph 3, of the law decree 6 July 2011, n. 98, converted, with modifications, by the law 15 July 2011, n. 111 , can take over the management of the same, as well as carry out ordinary and extraordinary maintenance and investment activities aimed at their requalification or adaptation. Any conventional provisions that exclude the recognition of indemnities in the event of early termination of the concession relationship are reserved, and the possibility is made for ANAS Spa, for the purposes of carrying out the activities referred to in the first period, to purchase any projects developed by the concession upon payment of a consideration determined having regard only to the design costs and to the intellectual property rights referred to in art. 2578 of the civil code. With the decree adopted by the Minister of Infrastructure and Transport, in agreement with the Minister of Economy and Finance, the object and methods of carrying out the provisional management assigned to ANAS Spa are governed if the extinction of the concession derives from non-fulfillment of the concessionaire, art. 176, paragraph 4, letter a) of Legislative Decree no . April 18, 2016, no. 50 , even in replacement of any conventional clauses, substantive and procedural, dissimilar, even if approved by law, to be understood as void within the meaning of 'art. 1419 , second paragraph, of the civil code, without being able to operate, as a result of this provision, any termination of law. The effectiveness of the revocation, revocation or termination of the concession is not subject to the condition of payment by the granting administration of the sums envisaged by the aforementioned art. 176, paragraph 4, letter a)" (Official Gazette, 2019).

Following the aforementioned law decree, all the companies holding motorway concessions have requested the opening of a negotiation with the government. L ' Aiscat , the association chaired by Fabrizio Palenzona , which represents 20 dealerships with almost 13 thousand employees who run 6000 km of highway network, believes that it is urgent to bring certainty and stability in the sector. In

the last week (late December 2019 and early January 2020), the Atlantia group (collapsed by the Benetton) has lost almost 4% on the stock exchange, Aspi claims that in the event of revocation of the concession with compensation reduced the bankruptcy of the company it would be inevitable. The unknown-tunnels, is an important variable that weighs on the takeover of Anas in case of revocation of motorway concessions foreseen by the thousand extensions but introduced for the case of Autostrade per l'Italia (Aspi). Italy risks an EU infringement procedure as a large part of the structures are not in compliance with the fire requirements (Corriere della Sera, 2020).

A possible alternative to the revocation appears to be the maxi-fine against Autostrade per l'Italia. According to reports from government sources, this would be one of the ways being studied to close the dossier on granting Aspi opened after the collapse of the bridge Morandi in Genoa. Hanging on the government's decision on whether or not to withdraw the concession, Autostrade per l'Italia is also preparing to implement the new industrial plan to give a signal of change and discontinuity with the past. The Minister of Infrastructure and Transport, Paola De Micheli, in an interview of January 9, 2020 with Repubblica, said that: "To avoid the breaking of the concession, Aspi has made several proposals also to the previous government. We considered them insufficient for the fallout for the benefit of citizens. 700 million for the reduction of tolls? We would have expected a significant reduction in toll charges, without changing the plan for greater investments in the network and for maintenance. The proposal is insufficient. "Autostrade includes the 600 million of the rebuilding of the Morandi Bridge in the compensation it offers to the State? This is money already provided for by law. If the discussion begins like this it is not only insufficient, it is also inadmissible." De Micheli underlines how the adoption of any revocation of hills on two bases: legal and economic. For the minister, "beyond Aspi, the culture of the relationship between the private and the public must be reviewed. The public has a prevailing interest and if it does not have the strength to assert it, an imbalance is created which is also damage to the private individual because it lowers quality. Unfortunately, the tragedy of Genoa is a lesson, "he says." Even the state cannot limit itself to pointing the finger, it must take on greater control capacity "(Rai News, 2020).

### **5.3 Revocation of motorway concessions: possible consequences**

The Milleproroghe decree, approved by the government "unless otherwise understood", risks shaking the majority of the government, unleashing new tensions. The reason for the dispute are some provisions, on all those relating to motorway concessions and which seem to anticipate the revocation of the Atlantia group, which was so much desired by the 5 Star Movement after the collapse of the Morandi Bridge in Genoa. In the Milleproroghe, in fact, there is a rule that provides that in the event of revocation, forfeiture or termination of road or motorway concessions, pending the tender

procedures to find a new concessionaire, management will pass to Anas, which will carry out ordinary and extraordinary maintenance and investment activities for the redevelopment or adaptation of the network.

The outgoing concessionaire will be responsible for the value of the works carried out, the penalties and other costs to be incurred for the termination of the relationship, unless the termination of the concession is due to its non-fulfillment. In this case, according to the decree, the concessionaire will be paid the "value of the works completed plus ancillary charges net of depreciation", but from this amount will be "deducted what the concessionaire is required to pay for compensation for damages deriving from its non-performance".

The Milleproroghe provides that this legislation will apply in place of any unconventional conventional clauses, even if approved by law, which in this case must be considered null. The new rules, in fact, must be considered as included in law in motorway contracts and concessions, even in those already in progress. These provisions have raised tensions in the government, with the representatives of Italia Viva who have not voted for the Milleproroghe rules on motorway concessions and have had their dissent recorded in the minutes. They are, however, those affected to express strong opposition. In the first place, Aiscat (Association of motorway and tunnel concessionaires) has manifested strong bewilderment for the provisions of Milleproroghe on motorways, calling them unconstitutional and speaking of "serious injury to the rule of law". These rules, Aiscat stressed, risk causing serious damage to companies and an entire production sector.

Last December 2019, Autostrade per l'Italia also intervened on the issue, the company of the Atlantia group which belongs to the Benetton family and which manages a large part of the Italian motorway network. According to the company, the Milleproroghe decree presents "significant profiles of unconstitutionality and opposition to European standards". Autostrade per l'Italia has announced that "it is evaluating every initiative aimed at protecting its rights in terms of constitutional and community legitimacy of the regulatory provisions on the principles of entrustment, freedom of establishment and competition, proportionality and reasonableness".

It is clear that the regulation on the possible compensation for default of the concessionaire refers to the case of the collapse of the Morandi Bridge in Genoa, for which the 5 Star Movement has long been asking for the revocation of the concession to Autostrade per l'Italia and for compensation for damages (QuiFinanza, 2019).

If the concessions are revoked, the Democratic Party will yield to the populist blackmail of the 5 Star Movement. The question is in fact twofold: on the one hand, the state controls, which in these twenty years have been almost completely lacking; on the other, compliance with dealers' contracts. The regulatory framework governing concessions is old, because in the meantime the terms of the

contracts have changed, and this anomaly cannot be passed on to citizens and businesses. The state was supposed to carry out the controls, but the concession contracts were secreted. The extent of the dealers' record profitability was known only after the collapse of Morandi. The State therefore also has its responsibilities, as it should have protected the general interest. The revocation of the motorway concession would then lead to a dispute whose onerous effects would fall on citizens, as well as fueling an anti-industrial climate and sentiment that would have the sole purpose of removing potential investors from our country. If the PD, should yield to the proceeds of the Five Star Movement, it would write a new phase in the relationship that regulates the public and private sector in our country. There have been errors and it is right that the investigations ascertain the responsibilities of the private and public (Cianciotta, 2020).

Subsequently, the Fitch cut came to Atlantia, with repercussions still to be established but for now the rating cut on Autostrade per l'Italia from "BBB +" to "BB +" and that on the parent company from "BBB" to "BB" has a somewhat immediate effect; that of allowing Cdp and Bei to request early repayment of the loans granted. As communicated by Atlantia, Fitch's decision "could determine the request by EIB and the CDP for the early repayment of loans granted to Autostrade per l'Italia for an amount of approximately 2.1 billion euros, of which approximately 1,8 billion guaranteed by Atlantia, with the consequent absorption of credit lines from Atlantia and Autostrade per l'Italia" (Il Sole 24 Ore, 2020).

#### **5.4 The government and the revocation of the concession to Autostrade**

The Prime Minister, Giuseppe Conte, seems to have decided, supported by Luigi Di Maio, on the revocation of the concession to Autostrade per l'Italia.

"On Autostrade the government's decision will come soon and will be based on a solid technical-legal basis. It is now clear that serious defaults in the management of motorway infrastructures have emerged. We won't discount anyone"; this is what the Premier said some time ago on twitter.

Luigi Di Maio, too, had already launched an appeal in which he asked to "resist" on the desire to revoke the concession to Autostrade and that they are also working very well with Minister De Micheli. "If a dealer has not done the right maintenance, he no longer has to make profits on our highways, risking the lives of many Italians"; this is what Di Maio said recently. Also the Deputy Minister of Infrastructure and Transport, Giancarlo Cancellieri, he had anticipated: "With President Conte we will take stock in the next few days." And he had thrown himself against the possibility of a maxi-fine, announcing: "We will not retreat".

But, in the majority, the agreement, however, is not total. The first to cast doubts on the possibility of the revocation was Matteo Renzi, who warned: "Concessions can only be revoked if legally the thing stands, otherwise our children and grandchildren will pay the damages for generations".

The leader of Italia Viva has specified that he does not want to defend Autostrade, but "legal certainty. If the company is in default, I revoke the contract: but who decides? The rules and laws are serious things". It withdraws yes, but only if it has legal bases, because "if it turns out that Autostrade is not to blame, 23 billion will have to be paid back. I am ashamed that tomorrow the state will have to pay 23 billion for today's populism" ( Bernasconi, 2020).

In mid-January 2020, Autostrade per l'Italia tries to save its concession, recovering the collapsed trust together with the Morandi bridge, promising tripled investments and a new reinforced maintenance plan, which includes real-time monitoring of the state of health of bridges and viaducts, while providing for around a thousand hires. The Board of Directors of the Atlantia Group , managed by the Benetton family, has set the guidelines for the 2020-2023 period stating in a note that it is ready to put 7.5 billion euros on the table.

In the meantime, the group is attempting to pacify the government, which has not yet made a decision on the revocation of the concession. "Without the concessions and the compensation provided for by the Milleproroghe decree, the company will default - he says - concern for the future of the company's seven thousand employees who work with dedication and for the possibility of being a resource for this country. And despite all the efforts we are making, it will not be easy to recover the financial downgrades ", says Tomasi in an interview (Fanpage.it, 2020).

Prime Minister Giuseppe Conte and Minister of Infrastructures Paola De Micheli are looking for a solution that avoids revocation , but they make it clear that they are ready for revocation if there are no strong openings by Aspi in the sense of a revision of the agreement, the reduction of tariffs and the strengthening of investments in maintenance. Pending a relaunch by Aspi, which had proposed a compensation of 700 million considered insufficient within the government, the hypothesis of the revocation will however be destined to grow. Gianfranco Cancelleri , the Undersecretary for Infrastructures of the Five Stars, had reiterated that "the revocation of the concessions to Autostrade remains the only solution" . In reality, Cancelleri took it with a maxi-fine hypothesis also denied by De Micheli. "A maxi-fine does not do justice to the 43 victims of the collapse of the Morandi bridge. A maxi-fine is an unacceptable compromise after the endless collapses and inconveniences due to the neglect of the motorway works granted to Autostrade " ; this is what affirmed by Cancelleri (Il Sole 24 Ore, 2020).

On the political table, however, the question is: whether or not to withdraw the concession after Ponte Morandi? The initiation of the revocation procedure should be placed at the forefront of possible government decisions. The second technical possibility which has also been mentioned, is that of a breach of the convention, decided by the government outside the procedure established by the convention. The third way for the government is that of the negotiation with Aspi to arrive at a heavy

revision of the agreement in progress with a reduction of the tariffs, an increase in the maintenance of the investments and an increased compensation for the events in Genoa.

The revocation , even if it were supported by heavy documentation on Aspi's responsibilities in the collapse of Ponte Morandi and in the subsequent episodes of bad maintenance, would still be heavy in terms of concrete effects.

Aspi has tried to open a window to the hypothesis of the negotiation and has made a proposal for compensation of 700 million which the government considers insufficient. Aspi also plans to approve a new industrial plan that will speed up investments, digitize controls in tunnels, improve service quality. The minister, however, insists that a revision of the convention is needed; no one off (Il Sole 24 Ore, 2020).

The Atlantia Shares in the last week of January 2020 are up sharply in Milan and this also thanks to the resignation of Luigi Di Maio from driving the M5S. The advances of the Atlantia shares today were supported by the statements of Giuseppe Conte, who confirmed that he has not yet reached a definitive solution on the revocation of the motorway concessions to Aspi (Money.it, 2020) .

According to Carlo Bertazzo , the new CEO of the parent company Atlantia , to evoke the concession to Autostrade per l'Italia would mean compromising a company and putting at risk a world-leading group in its sector, and therefore important for the country. The manager says that the collapse of the Morandi bridge was "something very serious, which should not have happened and which represents a watershed for the company". The manager asks "apologies to the families of the victims and to all the Italians". For the tragic event and for the wiretapping that showed the presence within the group of "people so distant from corporate ethics and our way of seeing and operating". The manager announces changes within Atlantia and in the subsidiaries.

On the lack of maintenance by Aspi and on the fact that everything happened without the knowledge of the parent company, Bertazzo replies that "the board of Atlantia takes care of the strategic guidelines of the subsidiaries. Maintenance programs and their modalities are not among the things we have ever discussed. Safety and reputation have always been absolute goals dictated by the board. It is clear that something did not work or that Autostrade per l'Italia did not do enough. Everyone will have to take on their own responsibilities. Let the judiciary run its course. Autostrade will have difficulty accessing the market, certainly not under the previous conditions. In the event of a revocation, without revenues and with reduced and deferred indemnities over time, it should immediately repay the debts and therefore could hardly avoid a default. It would be a very serious thing for the country. For Atlantia , however, it would be a question of guaranteeing a portion of Aspi's debt. We have lines of credit, but with the revocation we should start making reflections" (HuffPost , 2020).

In the end, the solution could be that of a spin-off of Aspi from Atlantia with the entry into Autostrade per l'Italia of Cassa Depositi e prestiti ( Cdp ) or of Italian Funds for Infrastructures (F2i). It also appears that the Benetton are looking for investors for the dealership, thereby saving the holding company Atlantia as well.

This hypothesis is liked to the market, to the point that 24 January 2020 on the Ftse Mib, Atlantia has been the second best of the day title. But, in addition to the market and investors, that of an exit of Atlantia from Aspi would also be a welcome solution to politics, in particular to the five stars who, from 14 August 2018, the date of the collapse of the Morandi bridge , do not want to hear about alternative solutions to the revocation of the concession (AGI, 2020).

Recently, the Minister of Infrastructure Paola De Micheli confirmed that a decision on the revocation of motorway concessions has not yet been taken. At the same time, however, Prime Minister Giuseppe Conte spoke of upcoming news: "We have not yet collected the latest opinions but we are there ."

Separate statements, Atlantia shares benefited from the outcome of the regional elections in Emilia Romagna and Calabria. From the consultation, the 5 Star Movement has come out downsized . Somehow, investors breathed a sigh of relief despite Conte's willingness to move forward.

From the beginning of the year to today, the stock has recorded positive performances in Milan. 2020 opened around € 20.16 for the Benetton holding, which then gained ground up to breakthrough € 20.5 . At the moment (January 28, 2020), Atlantia shares are gaining more than 2% and are changing around € 21.43 (Money.it, 2020).

### **5.5 Concessions and maintenance activities**

In 2018, the amount of accumulated expenditure for planned investments was 10.6 billion euros. By the expiry of the concession (2038), the concessionaire should have spent a total of 22.8 billion. From 1997 to today, Aspi has therefore completed 46.5% of the investments decided in consultation with the Government, against 51.2% of the time of the concession that has now passed. It would seem that Autostrade has slowed down on the progress of the works. However, the Benetton company has always justified itself by indicating as real causes of delay the "regulatory uncertainties, the abnormal approval times of the projects, as well as the deadlock relating to the approval of the update of the economic and financial plans" (note Aiscat 23 / 09/19), reasons partly shared also by the Ministry of Infrastructure and Transport (MIT) itself. Yet, with regard to ordinary and extraordinary maintenance costs, Autostrade continues to consider its concessionary work to be unexceptionable: according to the company's calculations, between 2000 and 2018 the costs for maintenance works would have amounted to 5.43 billion, against a planned outlay together with Anas of 5.23 billion (Econopoly, 2020).

In the last period, in the spotlight, the political debate appears on the concession of Autostrade per l'Italia (Aspi), including revocation, revision and sanctions. Behind the scenes there is the reform of the system of checks, adjustments and maintenance. It starts from the tunnels that have the most delicate situation, testing not only Aspi, but also all the other road managers, as well as the Ministry of Infrastructure itself (MIT). Carpet inspections have started with three external companies: Lombardi, Sws and Rocksoil. An operation decided after the collapse of two tons of materials from the vault of the Berté tunnel on the A26, on 30 December 2019. 70 million for the surveillance and first intervention activities entrusted to the Lombardi Group, Sws Engineering and Rocksoil.

The rest of the resources, those for the renovations that will be necessary based on their checks, will be taken from the 400 million posted for 2020-2023 in the last maintenance plan. However, it will be necessary first to have the maintenance plan approved by the MIT, as provided for by all the concession agreements, but to do this, the MIT must incorporate the methodologies of these inspections, as part of the work of a commission commissioned by Minister Paola De Micheli, to recover the situation in tunnels that had gone out of control in the last decade. The commission will elaborate parameters to which all motorway concessionaires will have to comply if they want to have the maintenance plans approved. It will also be necessary to see if the methodology possibly shared between Aspi and Mit will also be good for the other dealers, also subject to the approval of the Mit. At the moment, a collective comparison has not been initiated.

With regard to firefighting adaptation, transitory risk mitigation measures must be put in place, including traffic restrictions and controls. So far on the first transitional mitigation measures, there have been various problems and failures by MIT on the toll motorways, subject to its supervision. In Liguria, there have also been reports of non-compliance drawn up by the Fire Brigade. After several failures, Aspi completed the first interventions on the A16, on the Ligurian network it is activating voluntary presidia entrusted to an external company, to guarantee interventions in case of emergency.

From January 2020, to the first week of February 2020, preliminary checks were carried out on 135 of the 587 Aspi tunnels. The tour is expected to finish by mid-March 2020 but the oldest galleries, built until 1979, will be checked first. (Il Sole 24 Ore, 2020).

## **6. IFRIC 12: AGREEMENTS FOR SERVICES UNDER CONCESSION**

IFRIC 12 has been approved by the European Commission with EC regulation no. 254/2009 on March 25, 2009; it has profoundly changed the accounting of concessions, especially in the event that the grantor has control over the infrastructure used by the concessionaire for the provision of public

utility services. This accounting change assumes particular importance in the Italian economic reality in which many public utility services, also through privatizations carried out during the nineties, have been entrusted to private-law companies through concession contracts. IFRIC 12 applies to service concession arrangements between a public sector entity (grantor) and a private sector entity (concessionaire) if the following conditions are met:

- a) the grantor controls or regulates which services the concessionaire must provide with the infrastructure, to whom it must provide them and at what price;
- b) the grantor controls - through ownership or otherwise - any residual interest in the infrastructure upon expiry of the agreement.

If both of the above conditions are met, the concessionaire builds and manages the infrastructure on behalf of the grantor; consequently, it has no title to enter it in its financial statements as a tangible asset. Control of the grantor over any significant residual interest should both restrict the concessionaire's practical ability to sell or commit the infrastructure, and give the grantor an ongoing right of use throughout the term of the agreement. That said, the grantor can check the residual interest in the infrastructure in several ways:

- the grantor retains ownership of the assets under concession and grants the concessionaire a right of access necessary to provide public services only for the duration of the concession;
- the concessionaire builds (or purchases from third parties) the infrastructure, but is obliged, at the end of the concession, to return or sell the infrastructure itself to the grantor or to a third party (designated by the grantor);
- the grantor has the right to exercise an option that allows him to purchase the infrastructure at the end of the concession;
- the grantor remains in control even if the concessionaire, while being able to use the infrastructure during the concession, is required to donate it or sell it at the end of the concession agreement on the basis of a free faculty existing in the grantor.

IFRIC 12 provides that agreements that fall within the scope of application generally involve two subjects:

- a private sector entity (concessionaire) that builds, purchases or improves the infrastructure used to provide the public service and that manages it for a specific period of time, receiving a fee for the services offered;
- a public sector entity (grantor), which through concession agreements involves the participation of the private sector in the development, financing, management and maintenance of this infrastructure.

IFRIC 12 does not define precisely what is meant by private sector companies and public sector companies: the provisions are limited to stating that the grantor is identified by a public sector entity,

including a governmental body, or an entity of the private sector to which responsibility for the service has been delegated. This suggests that the grantor, in addition to an entity directly attributable to the government, can be represented by a peripheral structure of the public administration, as - purely by way of example - a local authority.

The objective of IFRIC 12 is to provide clarifications on the accounting model to be adopted in the dealer's financial statements to detect and evaluate the obligations and rights connected with the agreements for concession services. In view of the interpretation, the concessionaire acts as a service provider (ie construction of the work) and therefore must recognize the revenues for construction and improvement services in accordance with IAS 11 Contract work and the revenues relating to the management of the infrastructure in accordance with IAS 18 Revenues. By virtue of the general principle, envisaged by IAS 18 Revenues, the concessionaire should evaluate the revenues at fair value of the consideration received or due. In some cases, the consideration that the concessionaire receives for the construction activity is not the right to receive "cash", but the right (ie license) to economically exploit the infrastructure. In the latter case, the concessionaire must apply the provisions of paragraph 12 of IAS 18 and therefore if the fair value of the services received (ie the right to use the infrastructure) cannot be determined reliably, the revenue is calculated on the basis of the fair value of the services provided (ie fair value of the construction services provided). IFRIC has observed that the fair value of construction services may, in practice, be the most appropriate method for determining the fair value of the consideration due to the concessionaire for these services and therefore for initially measuring the asset (intangible or financial) that the dealer enters the balance sheet. The IFRIC specified that when the concessionaire receives a right (ie license) in exchange for its construction services, the concessionaire's total revenues do not correspond to the total incoming cash flows. The reason for this is that there are two kinds of cash flows. In the first case, construction services are exchanged with the license in an exchange transaction with the grantor. In the second species, the license (or "intangible asset") received by the grantor is used to generate cash flows that come from users of the public service. This result is obtained whenever an entity provides goods or services in exchange for another non-similar asset which is subsequently used to generate monetary revenues.

If the concessionaire builds or improves an infrastructure of which he has no control, the construction and improvement services carried out by the concessionaire on behalf of the grantor configure real works to order (OIC, 2010).

## 7. THE NETWORK OF MOTORWAY CONCESSIONS IN ITALY

Italy has historically managed the motorway network through the use of concessions, often without recourse to any public tender, justified only by the need to make new investments. Most of these concessions were entered into at the end of the 1990s. Motorway concessions represent the legal instrument on which the entire sector rests: currently, in fact, as much as 87% of the network is managed by private concessionaires and not by the State (through the ANAS its subsidiary) (D'Arienzo, 2018).

After the first dealership experiences of the 1920s and 1930s, which had allowed the construction of the country's first motorway sections, in the post-war period the desire to reconstruct public works and infrastructures can only involve the road sector. The construction of the motorway network in Italy after the war started on the basis of Legislative Decree 547/1948 and Law 463/1955 which, in addition to assigning the tasks of construction and management of new highways to ANAS, establish some characteristics of the nature of the conventional relationship between ANAS and the concession companies. Based on the rules contained in these legal provisions and in Law 59/1961, the construction and management of the Italian motorway network was carried out in part directly by ANAS and in part entrusted to other entities. However, most of the construction and operation of motorways was carried out through the use of the concession instrument.

A significant portion of concessions, ( starting from that for the construction and management of the Milan - Naples motorway in 1956), was entrusted to Autostrade SpA, belonging to the IRI group until the end of the 90s and therefore privatized in 1999 (Iozzi, 2002).

The IRI therefore decides to privatize a series of assets , including the motorway company and it passes from public to private, that is to say that the ownership of the network remains the state but the management and maintenance, remunerated by the tariffs, pass to private companies; this is the moment when a nucleus of private shareholders takes over with 30%, gathered in the Schemaventotto Spa Company which belongs to the Benetton family and which still represents the strong partner of the group. The remaining 70% is on the market. During 2003, due to a new organizational structure , the activities under concession are separated from non-motorway activities and Autostrade per l'Italia is born, 100% controlled by Autostrade SpA, what is now called Atlantia, a holding company listed on the stock Exchange from Milan.

Then the highways abroad will arrive, diversification in the airport sector and the tormented dossier of the wedding with the Spanish group Abertis . But more than corporate history, it is the history of concessions that has fueled the debate between those who point the finger at too generous rules for years. To regulate the system of the concession that entrusts the management of the network to Autostrade is the 1997 Convention (IV Additional Act) between the company and Anas which

considerably lengthens the time by providing for the extension of the concession from 2018 to 2038 (Capozzi, 2018).

The general scheme of the concessions was reformed by D. lgs . October 3, 2006 n. 262 , converted with modifications by L . November 24, 2006, no. 286, which introduced the institution of the "Single Convention". This, to be stipulated between the grantor (then Anas SpA, the Ministry of Infrastructure and Transport since 2012) and each concessionaire within one year from the first update of the financial plan, or the first revision of the agreement, must specify the risk allocation, the return on the capital invested and the methods of adjusting the tariff (Sestito, 2015).

The Italian motorway network is entrusted under concession to companies with various licensors (D'Arienza, 2018):

- MIT, to which most of the network under concession belongs. The toll motorway network granted by MIT is managed by 24 companies. The concession relationships are governed by specific conventional deeds entered into between MIT and the concession companies;
- Anas SpA, a public company subject to the supervision of MIT, which manages some sections directly, while for others it plays the role of indirect grantor, participating in 50% of the share capital in regional companies;
- some regional companies that play the role of grantor of infrastructures placed exclusively in the territory of the region to which they refer.

The last chapter, which ended in April 2018, concerns the 4-year extension of the concession to Autostrade per l'Italia; then to 2042.

### **7.1 The Italian motorway system and the European context**

The Italian motorway network is entrusted under concession to companies with various licensors. The first grantor is the Ministry of Infrastructure and Transport, which took over from Anas SpA in this role from 1 October 2012.

There is therefore, Anas SpA, a public company subject to the supervision of the Ministry of Infrastructure, which manages some sections directly, while for others it plays the role of indirect grantor, participating in 50% of the share capital in regional companies. Then there are the regional companies that play the role of grantor of infrastructures located exclusively in the territory of the region to which they refer. The toll motorway network, granted under concession by the Ministry of Infrastructure, is managed by 24 companies with 25 concession relationships (Ministry of Infrastructure and Transport, 2016).

**Figure 2: Concessionaire companies with the relative km of competence**

| CONCEDENTE MINISTERO DELLE INFRASTRUTTURE E DEI TRASPORTI             |  |                |
|---|--|----------------|
| DIREZIONE GENERALE PER LA VIGILANZA SULLE CONCESSIONARIE AUTOSTRADALI |  |                |
| Prog.   | SOCIETA'   | KM DI RETE     |
| 1   | ATIVA SpA  | 155,8          |
| 2   | Autostrade per l'Italia SpA                              | 2.857,5        |
| 3   | Autostrada del Brennero                                  | 314,0          |
| 4   | Autostrada Brescia – Verona – Vicenza – Padova SpA       | 235,6          |
| 5   | Autostrade Centro Padane SpA                             | 105,5          |
| 6   | Autocamionale della Cisa SpA                             | 101,0          |
| 7   | Autostrada dei Fiori SpA                                 | 113,3          |
| 8   | CAS – Consorzio per le Autostrade Siciliane              | 298,4          |
| 9   | Autovie Venete SpA                                       | 210,2          |
| 10  | Milano Serravalle – Milano Tangenziali SpA               | 179,1          |
| 11  | Tangenziale di Napoli SpA                                | 20,2           |
| 12  | RAV – Raccordo Autostradale Valle d'Aosta SpA            | 32,4           |
| 13  | SALT– Società Autostrada Ligure Toscana SpA              | 154,9          |
| 14  | SAT – Società Autostrada Tirrenica SpA                   | 54,6           |
| 15  | SAM – Società Autostrade Meridionali SpA                 | 51,6           |
| 16  | SATAP A4 Torino – Milano                                 | 127,0          |
| 17  | SATAP A21 Torino – Piacenza                              | 164,9          |
| 18  | SAV –Società Autostrade Vallostane SpA                   | 67,4           |
| 19  | SITAF – Società Traforo Autostradale del Frejus SpA      | 82,5           |
| 20  | Autostrada Torino – Savona SpA                           | 130,9          |
| 21  | SITMB – Società Italiana Traforo del Monte Bianco SpA    | 5,8            |
| 22  | SITRASB – Società Italiana Traforo Gran San Bernardo SpA | 12,8           |
| 23  | Strada dei Parchi SpA                                    | 281,4          |
| 24  | Società Autostrada Asti – Cuneo SpA                      | 55,7           |
| 25  | CAV – Concessioni Autostradali Venete SpA                | 74,1           |
| <b>TOTALE</b>   |  | <b>5.886,6</b> |

Source:

Ministry of Infrastructure and Transport in "Directorate General for the Supervision of Motorway Concessions, Activity Report 2016" (2016)

**Figure 3: Evolution of the European motorway network**

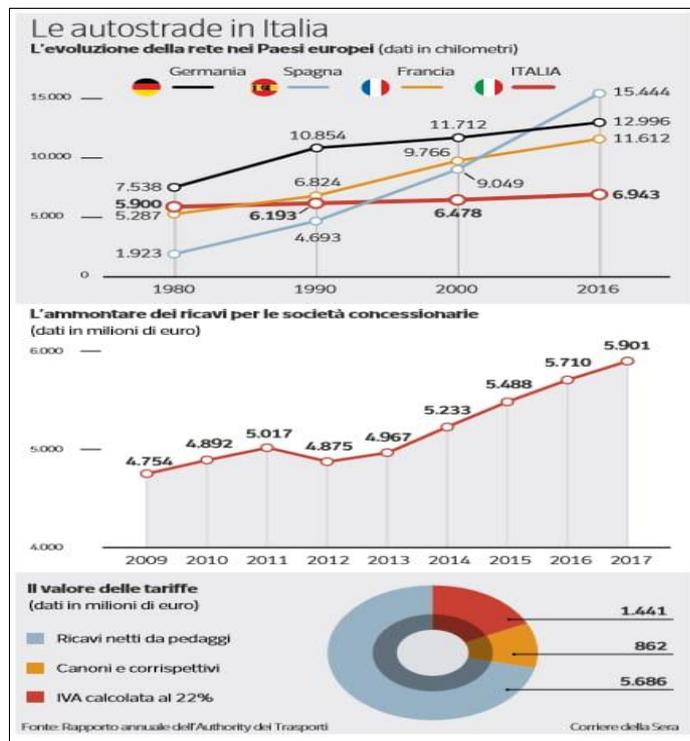
| STATO      | ANNO     |          | PERCENTUALE AUMENTO RETE |
|------------|----------|----------|--------------------------|
|            | 1990     | 2016     |                          |
| AUSTRIA    | 254,00   | 2.199,00 | 766%                     |
| SPAGNA     | 1.894,70 | 3.404,01 | 80%                      |
| FRANCIA    | 5.489,00 | 9.137,20 | 66%                      |
| GRECIA     | 871,00   | 1.842,80 | 90%                      |
| ITALIA     | 5.317,40 | 5.886,60 | 11%                      |
| PORTOGALLO | 291,30   | 2.943,30 | 910%                     |

Source: Ministry of Infrastructure and Transport in "Directorate General for the Supervision of Motorway Concessions, Activity Report 2016" (2016)

From a comparison with the European network of highways and toll roads, the fragmentation of the Italian network is noted, but another peculiarity is also given by the presence of only one concessionaire, that is, Autostrade per l'Italia SpA, which manages beyond the half of the entire

network. The second concessionaire by extension of the section managed, on the other hand, appears to be the Brenner motorway, while the smaller is the Naples ring road. In Europe, on the other hand, there are fewer operators with a greater development of the sections operated under concession (Ministry of Infrastructure and Transport, 2016).

**Figure 4: Motorways in Italy**



Source: Annual report of the Transport Authority (2020)

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## CONCESSIONS AND SERVICE CONCESSION ARRANGEMENTS: A LITERATURE REVIEW

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### ABSTRACT

The concession is therefore a form of functional privatization; the latter represents a derivative form of privatization, through which the state or public bodies entrust the supply of goods or services under a concession to a private company; it is therefore the passage of ownership and control of enterprises, from a public economic entity to a private economic entity. The expression "functional privatization", in fact, really wants to highlight the propensity of the PA to create public services, changing the tools and management logic of private companies (Gianfelici, 2008). The ways in which functional privatization is carried out is precisely that of granting (licensing) or outsourcing certain contracted tasks (contracting-out). These procedures do not transfer ownership of the assets to the private sector, but only management, i.e. the opportunity to act in certain contexts for a certain period of time. To achieve the objectives of functional privatization (minimizing the costs of the services offered by the private operator to the public one) it is necessary to correctly manage the tender to avoid that a private monopoly replaces the public monopoly. With the concessions there is a temporary assignment of the monopoly for the production, or distribution of a good or service to a specific economic entity which, by completing a tender, was the most suitable to guarantee the best quality-price combination. The contract represents the assignment in management to public or private operators of activities financed with public funds

*Keywords: Public Private Partnerships (PPPs), Accounting, auditing, accountability, Service Concession Arrangements.*

### 1. PPP AND SERVICE CONCESSION ARRANGEMENTS

The collaboration between the public and private sector has been the subject of attention at Community level since Directive 93/37 / EEC of the European Council of 14 June 1993 regarding the coordination of the procedures for the award of public works contracts for the specific themes of the realization of the infrastructure and subsequently, the management of public services with a gradual evolution. The notion of PPP involves a complex scheme of relationships between public authorities

and private companies aimed at realizing infrastructure projects and providing public services (Antoniazzi, 2017).

The source of the key principles of the PPP discipline are contained in the Green Paper on public private partnerships and public law of contracts and concessions of the European Commission of 30 April 2004 (Paradisi, 2017).

The European Commission has clarified that the PPP consists of forms of cooperation between public and private entities that aim to guarantee the financing, construction, management of a restructuring or maintenance of an infrastructure or the provision of a service. The main advantage that derives from the involvement of the private sector in the management of a public service is that the public body must not use its own resources in financing the operation of a public service (Antoniazzi, 2017).

## **2. THE USE OF PPP METHODS**

The use of PPP methods to carry out a project can alternatively allow (Gallia, 2008):

- generate income through user revenues: in this way, the expected revenues from the realization of the projects allow the private sector to recover the investment costs for the duration of the concession;
- request a public contribution: when it comes to initiatives where commercial user revenues are insufficient to generate sufficient economic returns;
- request the direct supply of services to the private entity: in this case, the latter derives their remuneration only from payments made by the PA on a commercial basis.

The 2004 Green Book identifies the distinctive elements of PPP contracts, especially the basic characteristics (Cori, 2007):

- the relatively long duration of the collaboration between the public partner and the private partner on the various aspects of a project to be carried out;
- the method of financing the project, guaranteed by the private sector;
- the main role of the economic operator, who participates in the various phases of the project. The public partner focuses above all on the definition of the objectives to be achieved in terms of public interest, the quality of the services offered, the pricing policy, and guarantees the control of compliance with these objectives;
- the sharing of risks between the public partner and the private partner, which is carried out on a case-by-case basis, according to the ability of the parties to assess, control and manage them.

## **3. PPP OPERATIONS**

PPP operations can bring benefits to all categories of parties involved. They allow (Crivelli, 2011):

- the administration, to perform its function in compliance with the principles of efficiency, efficacy and economy;
- the private sector, to pursue its profit purpose;
- the end user, to obtain more efficient public services that are able to raise the quality of life in the country;
- the entire economic system, local and national, to benefit (in terms of earnings) from efficiency and competitiveness.

The Green Book of 2004 identifies two main forms of PPP (Paradisi, 2017):

1. the contractual PPP, in which the relationship between public and private subjects is based on exclusively contractual / conventional links;
2. the institutionalized PPP, in which the cooperation between public and private subjects takes place within a separate entity with its own legal personality. As part of this form of PPP, the public partner can maintain a fairly high level of control over the structure created, compatible with company law rules.

In light of this, it is useful to note that the institutions mainly involved in the notion of Partnership are (Mastragostino, 2011):

1. the concession (of construction and management; of services); assignment to the general contractor; project financing; global service; financial leasing;
2. the mixed company for the performance of public services (both as a newly constructed object and as an objective of progressive construction); participation foundations that pursue the same purpose.

#### **4.PUBLIC, PRIVATE AND MIXED COMPANIES**

The normative references for public, private and mixed companies are contained in the articles. 101-106 TFEU with specific rules for the protection of competition, the prohibitions for Member States to maintain privileged situations, the regulation on state aid (articles 107 ss. TFEU) and that on public procurement, the rules on special rights and exclusives and the regime for bodies governed by public law (Legislative Decree no. 50/2016).

In addition to examining the institutionalized partnership (PPPI), the Green Paper also identifies two different manifestations of PPPI which consist of:

- in the "creation of an entity held jointly by the public sector and the private sector";

Or

- in the "transfer to private control of an already existing public company".

This cooperation (between public and private) allows the public partner to maintain a level of control over the conduct of operations through the shareholding and participation in decision-making bodies.

The PPPI also includes the transfer of capital of a public company to the private sector. The decision to change the shareholding and the general choice to privatize public services or certain sectors also fall within the economic policy of each individual Member State (Antoniazzi, 2017).

The areas where the forms of collaboration typical of the PPP are carried out with regard to the construction and management of works and / or services, are various (Paradisi, 2017):

- Transportation;
- Power;
- Environment;
- Sports facilities;
- Structures with a cultural value;
- Other public works.

The previous classification (between contractual and institutionalized PPP), is also accepted by the state legislature, which, in art. 3, paragraph 15-ter, Legislative Decree 163/2006 (modified by Legislative Decree no. 152/2008), defines the "PPP contracts", such as "contracts having as their object one or more services such as planning , the construction, management or maintenance of a public or public utility work, or the provision of a service, including total or partial financing for private individuals, even in different forms, such services, with risk allocation in accordance with the provisions and current Community guidelines ". In this perspective, the provision mentions just that. "PPP contracts include the concession of works, the concession of services, the financial lease, the assignment of works through project finance, mixed companies". PPP operations may also include "the assignment to general contractor where the consideration for the construction of the work is postponed in whole or in part and linked to the availability of the work for the client or third parties" (Mastragostino, 2011).

## **5.PPPS IN ITALIAN CODE**

The Public Contracts Code (Legislative Decree 163/06, and subsequent amendments) constitutes the reference regulatory provision also in terms of programming. The Code only regulates the planning of public works, referring to the implementation regulation the programming discipline for public contracts relating to services and supplies. Article. 283 provides the right, for each contracting authority, to approve each year an annual program for the acquisition of goods and services relating to the following year (Gallia, 2008).

The Public Contracts Code provides for two different forms of assignment (Crivelli, 2011):

- public initiative procedure: the PA publishes the call for tenders for those works, which can be financed in whole or in part with private capital, which are included in the relative annual list (art.128);

- private initiative procedure: the PA does not publish the tender notice within six months of the approval of the annual list. The private individual then proposes a project of his own initiative. At that point, the administration is required to publish the notice.

In both procedures, two different selection methods can be applied: "single race" and "double race".

- In the single tender procedure, the contracting authority publishes a tender notice, with the basis of a feasibility study, that is, a document that identifies the functional, managerial, economic-financial and technical characteristics of the necessary intervention. Subsequently, it examines the offers received within the deadline; draws up a ranking according to the criterion of the most advantageous offer and appoints promoter the one who presented the best offer. If the project does not require modifications, the contract is directly signed; if, on the other hand, the Grantor believes that it must be modified, the promoter may proceed with the review or waive its right of first refusal. In this second case, the contracting authority will ask the next candidate in the ranking to be prepared to enter into the contract;

- in the double tender procedure, the award is divided into two phases: the first tender is aimed at identifying the "promoter", while the second is aimed at awarding the concession.

The use of PPPs undoubtedly constitutes an important stimulus for economic recovery. In the Communication of the European Commission of 19 November 2009 (COM 2009 615), issued about five years after the adoption of the Green Paper on PPPs, positive and negative aspects linked to this particular method of carrying out public works are highlighted. As for the positives, we find (Sambri, 2012):

- improvement of project implementation;

- the reduction of infrastructure costs, thanks to the distribution of the cost of financing for the entire duration of the work;

- the improvement of risk sharing between the public and private sectors;

- promoting sustainability, innovation, research and development;

- recognition of the central role of the private sector in the development and implementation of long-term strategies for industrial, commercial and infrastructure programs.

The Commission report concludes that "the development of the PPP as a tool becomes crucial when the economic and financial crisis hampers the ability of public funds to make adequate funding available for specific projects and identifies five action plans to facilitate the spread of PPPs" .

In Europe there is no regulatory framework for PPPs, as there are no special rules of European law applicable to the choice of the private partner or to the implementation phase. The general principles of the EC Treaty as well as the directives in force on public contracts are valid for the choice of the private partner. According to the provisions of the Treaty, all contracts through which a public structure awards a contract must respect the principles of freedom of establishment and the provision of services pursuant to Articles 43-49 of the same Treaty; therefore these contracts must conform to the principles of transparency, equal treatment, proportionality and mutual recognition (Cori, 2007).

Article 3 paragraph 1, lett. eee) of Legislative Decree April 18, 2016 (Public Contracts Code), similarly to the previous Public Contracts Code (Legislative Decree 163/2006) defines the PPP contract as a contract for consideration, stipulated in writing, with which one or more stations contractors grant one or more economic operators for a period determined according to the duration of the amortization of the investment or the financing methods established, a complex of activities consisting in the construction, transformation, maintenance and operational management of a work in exchange for the its availability, or its economic exploitation, or the provision of a service related to the use of the work itself, with risk taking by the operator according to the methods identified in the contract (Massari, 2016).

The article specifies that the operating revenues of the economic operator can come not only from the fee recognized by the granting body but also from any other form of economic compensation, such as, for example, the direct income from the management of the service to external users .

In this way, the PPP stands out for the realization of the so-called "Cold works" (works that do not have an entrepreneurial significance such as to produce direct returns or in any case in which the social function is predominant so as not to allow the application of tariffs) and "hot works" (works that have an entrepreneurial relevance, since likely, in the short to medium term, to produce future profitability and whose investment costs can tend to be amortized with the cash flows deriving from the economic management of the infrastructure) (Polizzi, 2017).

In the legislative decree 18 April 2016, n. 50 (amended with supplementary and corrective provisions by Legislative Decree no. 56 of 19 April 2017) it is possible to find some direct references to the PPP in articles 180 ss. ("Public private partnership"), scheme whose application implies the call for a tender for the selection of economic operators; in the third part on concession contracts (articles 164 ff.) which best express the collaborative model of the public-private partnership according to modern logic and in the articles. 180-184 which expressly refer to the PPP and the application of competition rules. Article. 171 regulates the contract notice, procedures and procedures of the contract and art. 165 delves into the constituent elements of the concession (among the general definitions pursuant to art.3, paragraph 1, uu) and vv) and, in particular, the operating revenues of which the majority must derive

from the sale of the services rendered to the market and the transfer of operational risk (art. 3, paragraph 1, zz) which refers to "the possibility that, under normal operating conditions, the changes relating to the costs and revenues subject to the concession affect the balance of the economic and financial plan (Antoniazzi, 2017).

Among the main reasons for the growing interest in Italy for forms of collaboration between public and private, the particular infrastructure deficit that characterizes our country is highlighted. In fact, it is characterized by a significant gap with respect to the main industrialized countries, which contributes to limiting economic growth and international competitiveness. Hence the need for greater involvement of the private sector (Raganelli, 2013).

Until 2011, the United Kingdom was the leading European country among the countries that undertake PPP contracts with around 800 contracts executed since the mid-1990s and around 100 billion euros in total, mainly in the construction sector. England began in 1980 with the privatization of public enterprises and with the introduction of mandatory tenders (CCT). Subsequently, in the 1990s, the government introduced a mixed market policy for the provision of fundamental public services with the aim of proving their efficiency by exposing them to competition from external suppliers. At the end of 1992, the British Conservative Government launched the Private Finance Initiative (PFI), an institutional program conducive to the involvement of private individuals in the realization of public investments through the provision of construction and management concessions in the presence of conditions of economic convenience for the private sector and cost optimization for the public sector. The PFI's goal was precisely to bring greater discipline in public infrastructure contracts.

A PFI has the purpose of transferring part of the risk associated with the project to private companies and allows the Government to define the performance levels in the contract and to apply financial penalties in the event of non-compliance; the goal is precisely the most efficient delivery of the work. The transfer of risk and the ability of the public administration to sanction the poor performance can only work if the private partner is compliant, given that the risk of bankruptcy can also be added (Antoniazzi, 2017).

In the PFI, the public client selects a private contractor in charge of carrying out the work and taking care of its maintenance. The latter is remunerated (through periodic payments) by the administration itself, by the subjects who use the infrastructure, or by a combination of both solutions. To encourage the use of PFI and spread a culture of collaboration between public and private, the British government has preferred to focus on non-binding legal acts, such as guides, practical notes, recommendations, leaving administrations the choice of whether or not to comply with them. Among the most important PFI guides are those developed by the Ministry of the Treasury, concerning the

standardization of PFI contracts and the identification and evaluation of the various options available to the administration for the construction of the work (Raganelli, 2013).

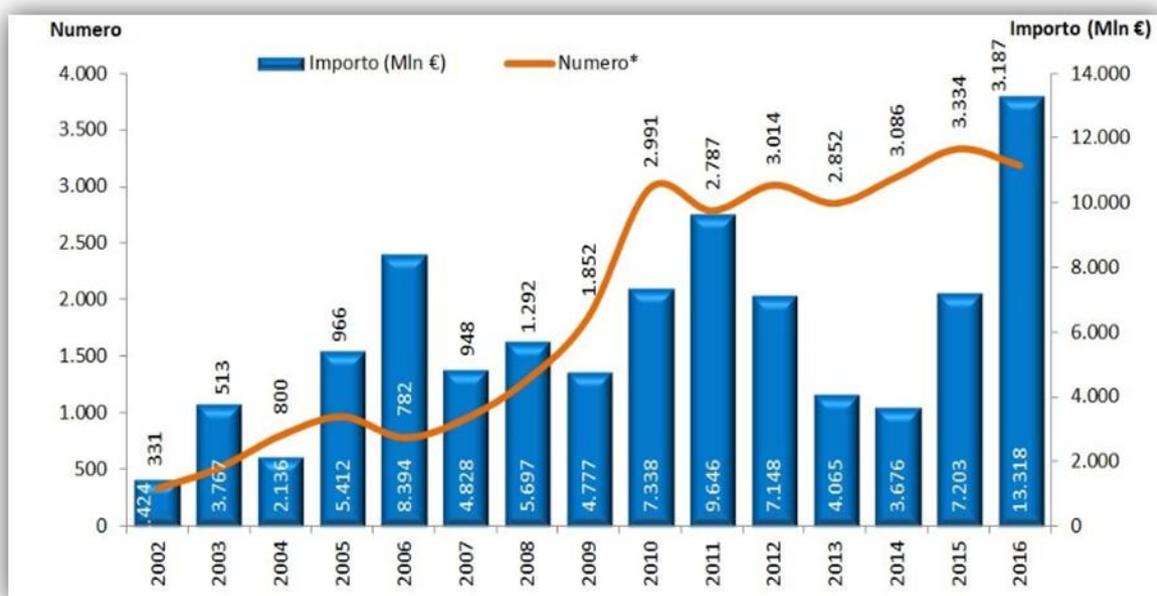
In German law, however, the law on public-private partnership dates back to 2005, after the transposition of directives no. 17 and n. 18 of 2004 on public contracts.

With the federal law of 2005 (Öffentlich-Private Partnerschaft (ÖPP)), the development of the partnership was later than in the United Kingdom. This law defines a very general scheme as long-term cooperation between the public sector and the private economy for purposes of public interest with advantages for both sectors, but it does not propose a legal definition or an organic discipline. The federal law then resulted in the laws of the various Länder with the consequence that currently fourteen disciplines are in force and in recent years the implementation of interventions through PPP has increased, especially in a period of financial and economic crisis; but despite this, it certainly has not reached the level of the United Kingdom (Antoniazzi, 2017).

## 6.DATA

The data provided by the National PPP Observatory for the years from 2002 to 2016, allow us to affirm that the PPP has become an important market for our country over time, with approximately 29,000 "proceedings in progress", ie tenders awarded and tenders in progress, for a total amount of approximately € 90 billion. It passes from 331 initiatives in 2002, to the annual average of over 3,000 initiatives in the period 2012-2016, with the peak of 3,334 in 2015, and with a 2016, despite the entry into force of the new Public Contracts Code, attested at 3,187 ongoing initiatives (Tascedda, 2017).

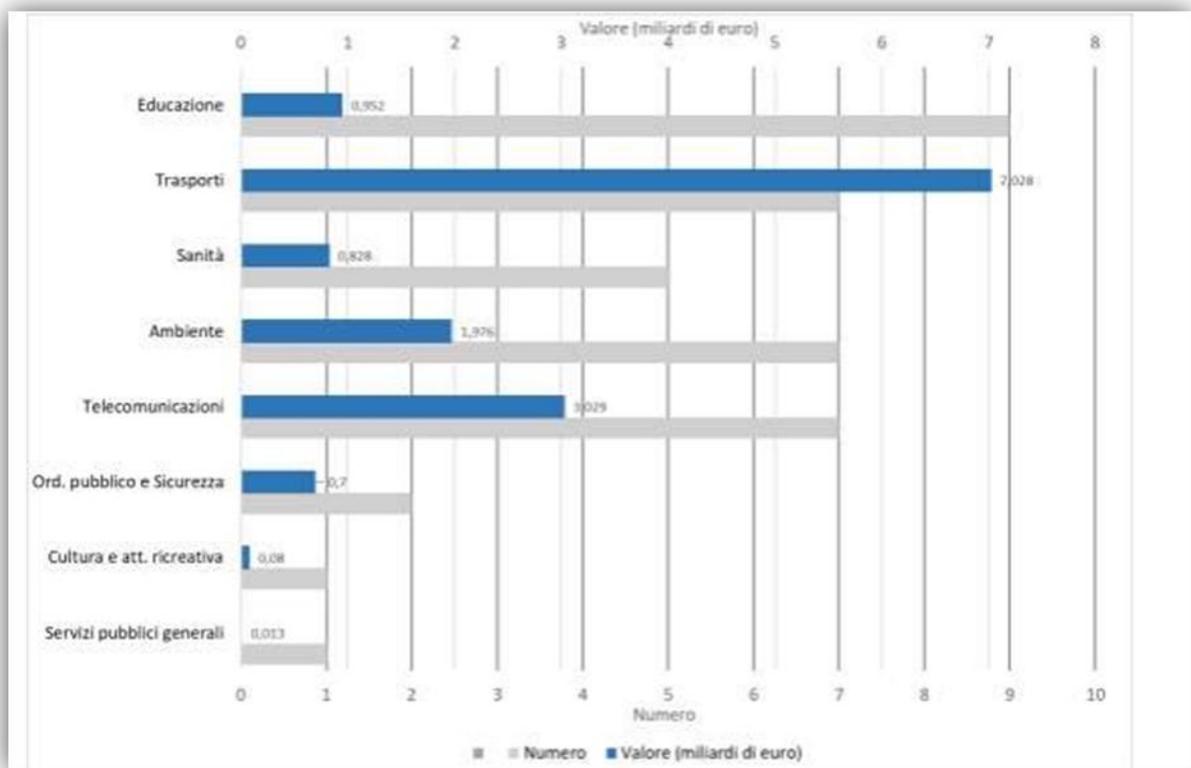
**Graph 3: PPP calls - 2002-2016**



Source: Cresme Europa Servizi on data from the PPP National Observatory (infoppp.it) promoted by DIPE, IFEL, CNAPPC and managed by Cresme Europa Servizi in "2017 Report on the Private Public Partnership Market in Italy" (2017)

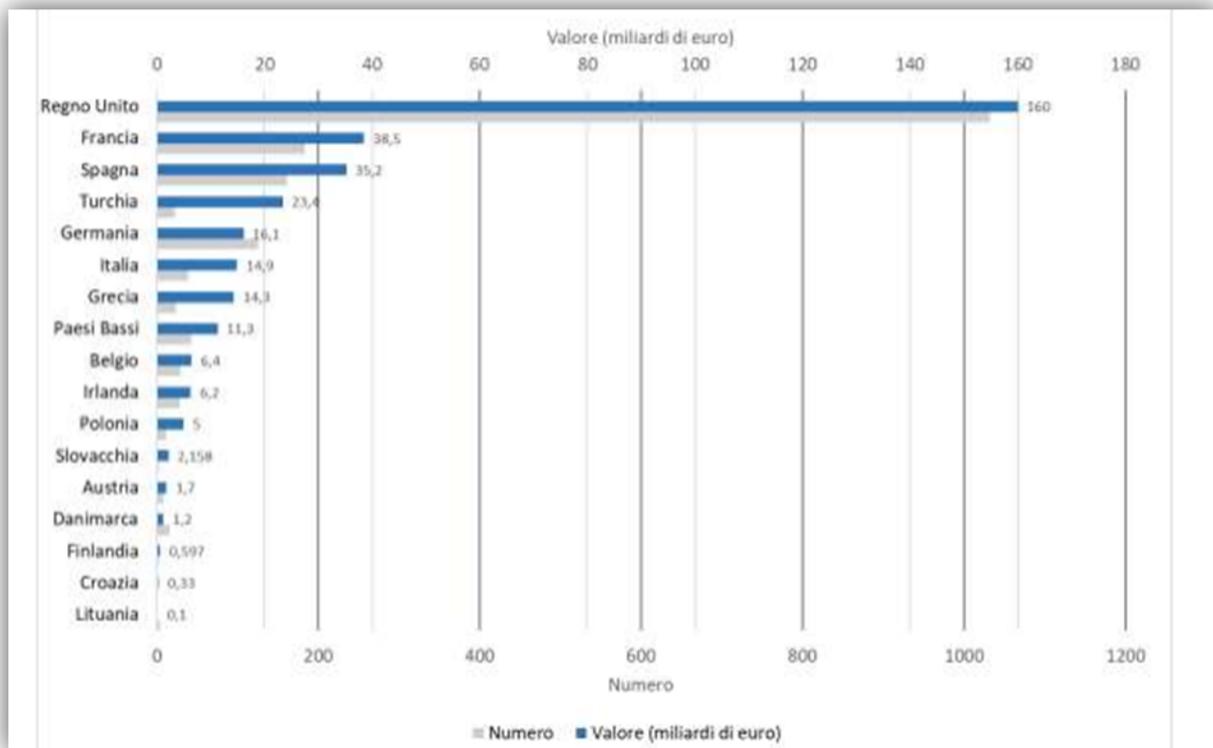
In the last 10 years (2009-2018) the public private partnership market in Europe has shown a decreasing trend. The country that dominated the European PPP market in 2018 is Turkey, which with 5.1 billion euros total (6 billion euros in 2017) recorded the highest value of European transactions. The French market with 15 contracts in 2018 (9 contracts in 2017) dominates the ranking in terms of the number of contracts; ranking that in 2017 was dominated by the British market with 12 contracts followed by the French and Turkish market with 7 contracts each (Pasquini, 2019).

**Graph 4: European PPP market 2018 - Value and number of closed contracts by sector**



Fonte: Elaborazioni DIPE su dati EPEC in "Partenariato Pubblico Privato e Finanza di progetto – Relazione sull'attività svolta dal DIPE negli anni 2017-2018" (2019)

As for the sectors, the transport sector recorded the highest value of financing contracts with 7 billion euros but the number of projects closed in this area (7 in 2018 and 10 in 2017) is the lowest in the last 20 years . If you extend the analysis to the last 10 years (2009-2018), you can see that the United Kingdom has led the European PPP market both in terms of the number of closed contracts (1,032) and in value (160 billion euros), followed by France and Spain. Italy ranks sixth with 39 closed contracts and 14.9 billion euros in value, preceded by Germany and followed by Greece (Pasquini, 2019).

**Graph 5: European PPP market 2009-2018 - Value and number of contracts closed by country**

Source: DIPE processing on EPEC data in "Public Private Partnership and Project Finance - Report on the activities carried out by the DIPE in the years 2017-2018" (2019)

Of the 39 transactions that reached the loan agreement in 2018, 21 saw the participation of institutional investors in several countries (5 in 2017 and 6 in 2016): France, Germany, Ireland, the Netherlands, Serbia, Turkey and the United Kingdom.

In 2018 the sectors that showed the most dynamism are: energy and telecommunications, transport, ports and logistics, health and cemeteries. With regard to the contractual typologies, the one most used by the PAs for PPP initiatives is the concession of services (72%), while in terms of value of the initiatives, 56% refers to the works concessions (Pasquini, 2019).

Finally, it is possible to affirm that, the PPP must not be considered only as an alternative financing model, but in particular as a tool that allows the PA to involve private entities and their skills to find innovative solutions as regards the provision of services. public (Borgonovi, Fattore, Longo, 2015).

In our country, the expression project financing (or in Italian "project finance") has been frequently used to define a particular form of PPP, at the base of which a concession contract for the construction and management of a public work is placed. or of public utility. Project financing in Italy has taken hold mainly in public utility works. In this sense, the promoters are called upon to submit a proposal to the public administration to finance, execute and manage a particular public work that has already been approved or will be approved within a short time. However, there are differences between

project finance in Italy and what it represents in its more classic definition. In particular, while project financing provides for an equitable distribution of risk between the promoter and the banks, in Italy the risk is assumed almost exclusively by the promoter (Gennari, Monosilio, Coloparti, Tempesta, 2012).

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# **PUBLIC PRIVATE PARTNERSHIPS: BUSINESS THEORY AND PRACTICE**

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## **ABSTRACT**

The decrease in public investment in recent decades, partly due to the lack of public spending needs, has generated growing interest in alternative financing models for public works and in forms of Public-Private Partnership (PPP) (Raganelli, 2017).

The PPP represents one of the most important resources available to the PA for the financing, construction and management of infrastructures and / or the provision of services of public interest. It consists of a series of forms of cooperation between the public and private sectors, through which both parties have the opportunity to achieve the objectives they have set themselves, also guaranteeing - based on the analysis of the results achieved ex post - a better quality of services provided. The most common type of PPP is the concession of public works, that is a contract for the design, construction and management of a public or public utility work that can be entrusted through traditional procedures (open and / or restricted) or through the innovative administrative procedure of Project Finance (Taronna, 2014).

*Keywords: Public Private Partnerships (PPPs), Accounting, auditing, accountability.*

## **1. THE PUBLIC-PRIVATE PARTNERSHIP**

The decrease in public investment in recent decades, partly due to the lack of public spending needs, has generated growing interest in alternative financing models for public works and in forms of Public-Private Partnership (PPP) (Raganelli, 2017).

## **2. BUSINESS MODEL**

The PPP represents one of the most important resources available to the PA for the financing, construction and management of infrastructures and / or the provision of services of public interest. It consists of a series of forms of cooperation between the public and private sectors, through which both parties have the opportunity to achieve the objectives they have set themselves, also guaranteeing - based on the analysis of the results achieved ex post - a better quality of services provided. The most common type of PPP is the concession of public works, that is a contract for the design, construction

and management of a public or public utility work that can be entrusted through traditional procedures (open and / or restricted) or through the innovative administrative procedure of Project Finance (Taronna, 2014).

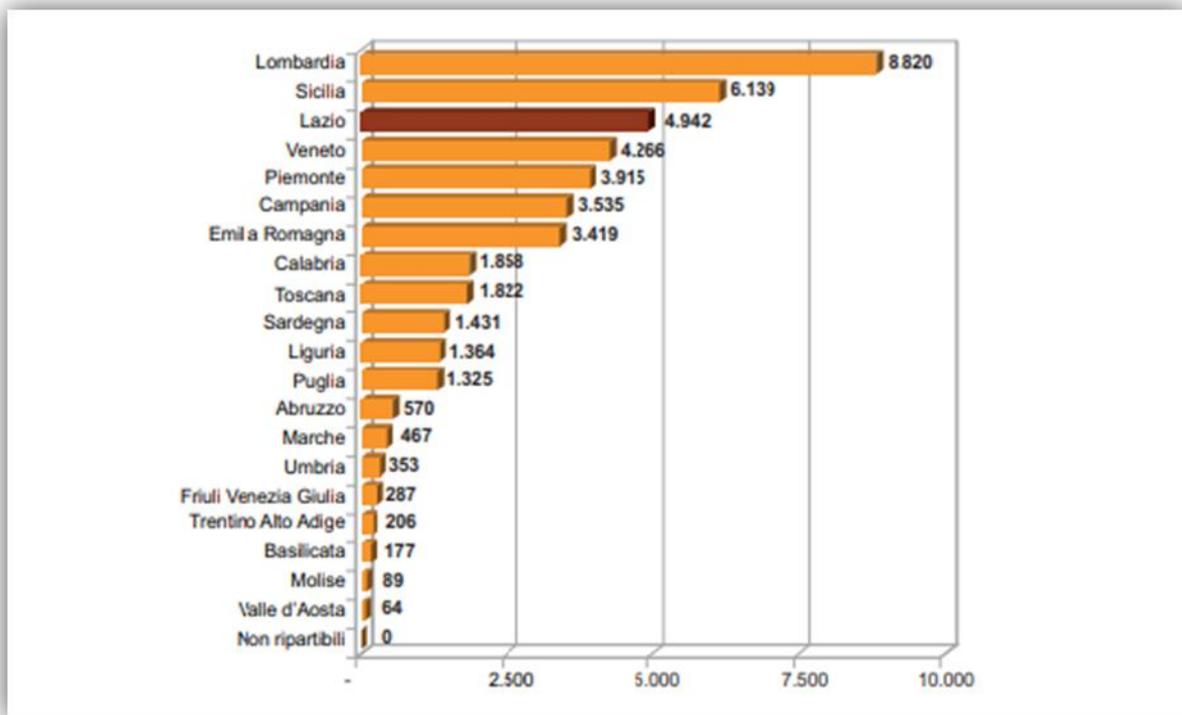
According to the Eurostat definition (Crivelli, 2011):

- the Public Administration must be the main purchaser of the services that the work provides, whether this is done directly or whether it is done on behalf of third parties;
- the contract must provide for the construction of a new infrastructure or the renovation of an existing one.

The second point represents the main difference between a PPP concession and a privatization.

Privatizations concern the "sale" of an existing business from the public sector to the private sector, which should reorganize or improve it. The public sector, after the sale, loses control of the asset. In the context of PPPs, however, the business is created, financed and managed by the private sector but controlled by the public sector.

**Graph 1: Territorial comparisons: amount of PPP tenders surveyed in the period 2002-2009**



Source: SIOP, Annual Report 2009 in "The financial instrument of the Public Private Partnership: state of the art in Italy" (2011)

The collaboration between the public and private sector can be considered as an "old novelty", as the doctrine began to study the private law activity of the PA already in the first half of the twentieth century (Fioritto, 2017).

In Italy the first project finance operations were carried out following the liberalization of the electricity production market, outlined in the early nineties by law 9/91 and law 10/91. The trend of the operations activated in PPP was positive from 2002 to 2005, the year in which 25% of the overall value of public works was reached. In 2006 this trend reversed to 20 and then 15.4% in the first half of 2007 (Crivelli, 2011).

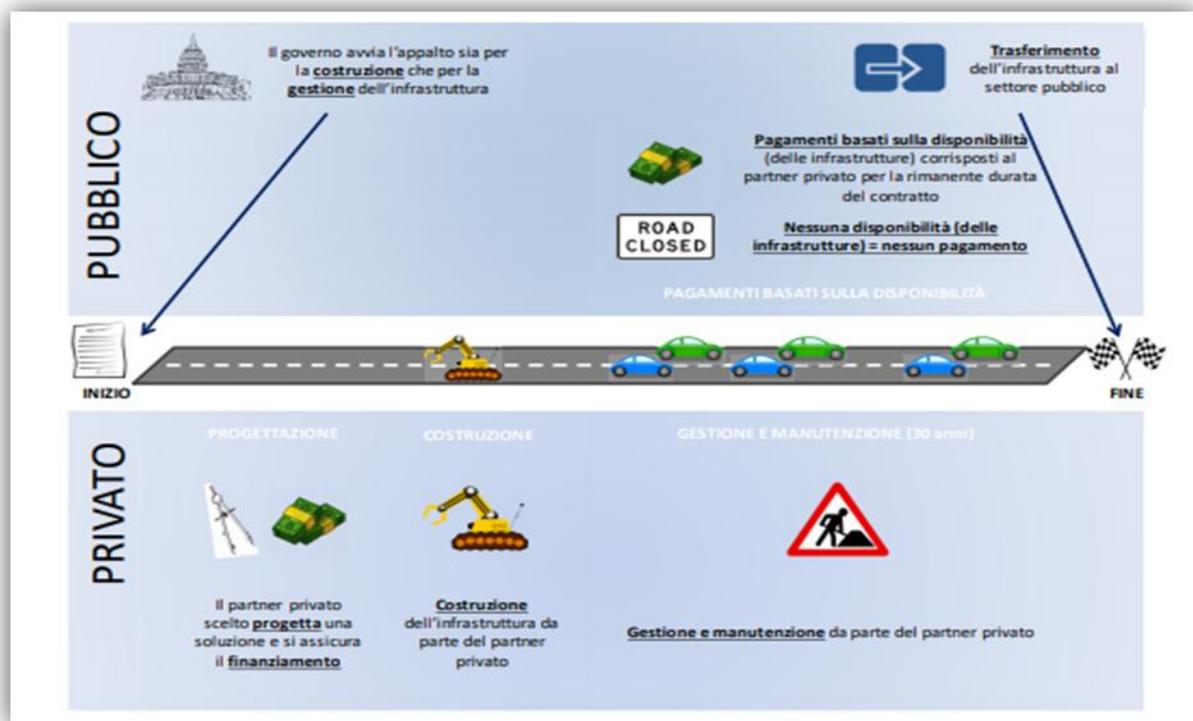
Graph 1 shows the size of the PPP market from 2002 to 2009 at regional level based on data from the 2009 Annual Report of the Information System on the Opportunities of the Public Private Partnership (Crivelli, 2011).

### 3. ITALIAN PPPS EXPERIENCES

According to the European PPP Consultancy Center (EPEC), between 1749 and 2016, 1,749 (PPP) projects reached a financial closure on the EU PPP market, for a total value of 336 billion euros. Before the financial and economic crisis of 2008, the PPP market was in a phase of strong expansion in terms of volume; from 2008 onwards, however, the number of new PPP projects has decreased (European Court of Auditors, 2018).

The PPP is able to reconcile the protection of economic interests with the satisfaction of social needs. This feature makes PPP very useful in times of crisis. In fact, following the 2008 financial crisis, the PPP was conceived as "one of the antidotes to overcome market failures", as it can be used for "the construction of infrastructures and works of particular social utility, such as in the sectors of health and education ". The scope of operation of the PPP goes beyond social services; according to the data of the National Observatory on PPP, between 2002 and 2014, the transport sector is the one in which there was the greatest impact of PPP in economic terms; followed by the energy networks, environment and health sector. Furthermore, even if in Italy, Lombardy is the region that contributes most to the formation of GDP and the one in which there is the greatest number of partnership operations, however there is no one-to-one correspondence between the wealth of the territory considered and the frequency of use of PPP. In fact, the statistical data show that one of the Italian regions in which the latter is most widespread is Campania. For this reason, the PPP could build a lever to be activated to try to reduce the gap that separates North and South in Italy in terms of growth and development (Fioritto, 2017). The most common manifestation of PPP is the contract "project-construction-financing-maintenance-management" (DBFMO, Design-Build-Finance-Maintain-Operate). In this case, the individual is entrusted with all the phases of the project, from design to construction, to operational management and maintenance of the infrastructure, including fundraising.

Graph 2: Scheme of a typical DBFMO PPP based on availability



Source: European Court of Auditors in "Public-private partnerships in the EU: widespread shortcomings and limited benefits" (2018)

Graph 2 contains a representation of the different phases of a DBFMO PPP, where the respective responsibilities of the public and private partners are indicated. After the completion of the construction phase, the public partner begins to pay the private part for the use of the service. The amount of the installments usually varies based on the availability of the infrastructure or the level of use of the infrastructure, to ensure that the required quality standards are met throughout the life of the project (European Court of Auditors, 2018).

#### 4. CONCLUSIONS

In Italy the PPP has not spread as in other countries and the main problems that have hindered this diffusion are different (Crivelli, 2011):

- the low competition in the private finance sector;
- the non-bankability of the Concessions;
- the incompleteness of the Contracts which implies a vague and uncertain allocation of risks;
- the possibility for the private sector to renegotiate: often the PEF is revised to the detriment of the public who has no experience with PPP.

The results therefore lead to:

- long times: both from the publication of the tender notice to the award of the Concession and from this to the financing;

- high mortality rate for projects.

The collaboration between the public and private sector has been the subject of attention at Community level since Directive 93/37 / EEC of the European Council of 14 June 1993 regarding the coordination of the procedures for the award of public works contracts for the specific themes of the realization of the infrastructure and subsequently, the management of public services with a gradual evolution. The notion of PPP involves a complex scheme of relationships between public authorities and private companies aimed at realizing infrastructure projects and providing public services (Antoniazzi, 2017).

The source of the key principles of the PPP discipline are contained in the Green Paper on public private partnerships and public law of contracts and concessions of the European Commission of 30 April 2004 (Paradisi, 2017).

The European Commission has clarified that the PPP consists of forms of cooperation between public and private entities that aim to guarantee the financing, construction, management of a restructuring or maintenance of an infrastructure or the provision of a service. The main advantage that derives from the involvement of the private sector in the management of a public service is that the public body must not use its own resources in financing the operation of a public service (Antoniazzi, 2017).

The use of PPP methods to carry out a project can alternatively allow (Gallia, 2008):

- generate income through user revenues: in this way, the expected revenues from the realization of the projects allow the private sector to recover the investment costs for the duration of the concession;

- request a public contribution: when it comes to initiatives where commercial user revenues are insufficient to generate sufficient economic returns;

- request the direct supply of services to the private entity: in this case, the latter derives their remuneration only from payments made by the PA on a commercial basis.

The 2004 Green Book identifies the distinctive elements of PPP contracts, especially the basic characteristics (Cori, 2007):

- the relatively long duration of the collaboration between the public partner and the private partner on the various aspects of a project to be carried out;

- the method of financing the project, guaranteed by the private sector;

- the main role of the economic operator, who participates in the various phases of the project. The public partner focuses above all on the definition of the objectives to be achieved in terms of public

interest, the quality of the services offered, the pricing policy, and guarantees the control of compliance with these objectives;

- the sharing of risks between the public partner and the private partner, which is carried out on a case-by-case basis, according to the ability of the parties to assess, control and manage them.

PPP operations can bring benefits to all categories of parties involved. They allow (Crivelli, 2011):

- the administration, to perform its function in compliance with the principles of efficiency, efficacy and economy;

- the private sector, to pursue its profit purpose;

- the end user, to obtain more efficient public services that are able to raise the quality of life in the country;

- the entire economic system, local and national, to benefit (in terms of earnings) from efficiency and competitiveness.

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## USAGE OF MACHINE LEARNING IN INTERNATIONAL ENTREPRENEURSHIP

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### ABSTRACT

The purpose of this study is to explore the perceptions of chief technology officers (CTO) of software development firms (SDF) about how and why machine learning (ML) methodologies might be used to support foreign market evaluation decisions. The research design is a qualitative multiple case study with six interviews with CTOs of SDFs and corporate documents about ML applications from the case study firms as sources of evidence. The results of this multiple case study suggest the following four findings: 1) The usage of ML to support foreign market evaluation and selection decisions has the potential to improve quality and efficiency, 2) data availability is a key factor of ML to support foreign market evaluation decisions, 3) “easy to use” and “easy to interpret” ML supervised methods are the most suitable to support foreign market evaluation and selection decisions, and 4) existing ML development methodologies can be applied to support market evaluation and selection decisions. These findings have a limited generalizability due to the research methodology and are valid only for these case study firms. The results of this study may be relevant for researchers who are interested in a further digitalization of decision-making processes. The results may also be relevant for practitioners to better understand the use of ML methodologies in complex important decision-making processes like the evaluation of foreign markets. This work integrated fundamental theories of internationalization (Uppsala Model) with the concepts and methodologies of machine learning, whose relationship is yet not covered by the academic discourse.

*Keywords: machine learning, internationalization, Uppsala Internationalization Process Model, decision-making, developing country.*

### INTRODUCTION

The world is following a trend that is damaging longtime set trade rules and that adds unpredictability to how markets will behave (The World Trade Organization, 2019). Nevertheless, the recently announced EU-MERCOSUR Trade Agreement is set to strengthen commerce and add some

predictability that member states of the two blocks can take advantage of, while other countries behave erratically. Small and medium sized companies (SMEs) from the EU and MERCOSUR can benefit from this trade agreement, and machine-learning methodologies can help to better understand internationalization processes. This work aims to integrate fundamental theories of internationalization based on the works of Johanson and Vahlne (2017) about the Uppsala Internationalization Process Model (UIPM) and Neubert and van der Krogt (2019) about market evaluation and market selection with the concepts and methodologies of machine learning, and inspired by the machine learning applications in entrepreneurship research (Coad & Srhoj, 2019) and for decision-making purposes (Dvouletý, Srhoj, & Pantea, 2020) public interventions for internationalization and foreign market penetration (Srhoj & Walde 2020).

This work is based on the statement of Coviello, Kano, and Liesch (2017) that states about the UIPM and the digital context: "Although Vahlne and Johanson conclude their arguments by recognizing how information technology is radically transforming international business, they do not explicitly address the impact of this transformation." This work addresses the calls for research of Coviello, Kano & Liesch, (2017) and Neubert and Van Der Krogt (2018) for digitalization in the context of the UIPM.

The purpose of this study is to explore the perceptions, views, and opinions of subject matter experts about how and why machine learning methodologies might be used to support foreign market evaluation and selection decisions using a multiple case study research design with six semi-structured, in depth interviews with chief technology officers as subject matter experts and corporate documents about machine learning applications from their case study respective software firms as sources of evidence.

This paper is structured as follows: After this introduction, the literature review covers the most recent papers about the UIPM and machine learning methodology, and the conceptual framework used in this study. The second chapter explains the methodology used. The results are discussed in the third chapter. Finally, this paper concludes summarizing findings and proposing further research topics.

## **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

This work relies on the foundation set by the UIPM. The UIPM has been a subject of great discussion in the academic discourse and it is particularly relevant to Paraguay and Europe, regions where Neubert and Van Der Krogt (2017, 2018) have proven that different types of companies' internationalization efforts can be described with the UIPM. For the machine learning literature, a

model proposed by Awad and Khana (2015) was selected as the conceptual base for machine learning methodology, as it proves to be validated by a number of authors cited in the literature review.

#### *The Uppsala Internationalization Process Model (UIPM)*

Conceived in 1977 by Johanson and Vahlne, the UIPM is one of the most widely cited models in international business and contributed the first general model of the internationalization process of large firms (Gulanowski, Papadopoulos, & Plante, 2018). At its core, the model focuses on the gradual acquisition, integration and use of knowledge about foreign markets and operations, and on the incrementally increasing commitments to foreign markets (Johanson & Vahlne, 1977). The model describes internationalization as a gradual cyclical process that consists of “state” and “change” aspects, and suggests that the firm commits resources based on the extent of knowledge it has about a given market. (Gulanowski et al., 2018).

Its latest version from the year 2017 preserves the concepts of “state” and “change” aspects, with big changes and additions in their variables compared with the original model of 1977, which are the result of incremental changes of the model over the years. The change variables propose two starting points for change: commitment processes and knowledge development processes. The first variable is defined as “intermittent decision processes related to committing – or not committing – resources”, and the second as “continuous knowledge development processes through learning, creating, and trust-building” (Vahlne & Johanson, 2017).

State variables are the result of (and affect) the change variables and consists of capability variables and commitment/performance variables. The first type of variable “reflects the ability to use resources for a particular purpose” (Vahlne & Johanson, 2017). And the commitment/performance variable is defined with “commitment” as the distribution of resources of the firm to its “functions, its product lines, the countries where it is active, and the relationships in which it has invested” (Vahlne & Johanson, 2017). Whereas “performance” refers to what has been achieved already.

#### *Market Evaluation and Selection*

Based in the concepts of the UIPM, Neubert (2017, 2013) developed a procedural process, “which shows the degree of structured and disciplined approach that is necessary to manage a global sales organization successfully” (Neubert, 2017). In this process four steps are identified as the steps that businesses follow in order to achieve their international business development goals.

In the first step “Market Evaluation and Selection” and the second step “Market Preparation”, the most attractive markets are selected and a business model for them developed. The ability to learn about foreign markets and to create networks is the key driver of these two steps. During step one and step two, the firm needs to understand whether their firm-specific advantages according to the UIPM can be transferred to new foreign markets or if other competences might be considered or used as

firm-specific advantages to compensate for the liability of foreignness and outsidership. Step three “Market Entry” and step four “Market Development and Growth” can be compared to the market commitment establishment chain of the UIPM. With growing market success, the firm is dedicating or investing additional resources in a new foreign market.

This work will limit itself to the first step of this international market internationalization process and market evaluation and selection, which includes some smaller tasks that could be of interest for the use of machine-learning methods. The first task is named “Selecting Appropriate Foreign Markets” and it recommends to first consider the exclusion criteria within a checklist approach before considering more specific variables. After the initial filtering, the second task comes into place: “Calculating Market Attractiveness”. This task includes calculating market attractiveness, in which numerical values are assigned four fields to be analyzed: framework conditions and country risks, industry specific market potential, intensity of competition, and own competitive position. The company assigns variables to each field and the result is a ranking of markets where internationalization is recommended. The subsequent tasks involve more time and resource consumption and can be summarized as the creation of a business plan for the top markets. After selecting the best business plan, a strategy is drawn.

#### *Machine Learning (ML)*

ML is a part of the field of artificial intelligence (Awad & Khana, 2015), and over the years different sources have defined it in different ways. As a field of study, machine learning sits at the crossroads of computer science, statistics and a variety of other disciplines concerned with automatic improvement over time, and inference and decision-making under uncertainty (Jordan & Mitchell, 2015).

ML development practices are not yet standardized. As Watanabe et. al (2019) demonstrated after a search query of 2358 papers, there is still little research on the topic and they stated that that “these practices depend on individual developers or organizations.” Still, this work identified the methodology proposed by Awad and Khana (2015) and found it compatible with other methodologies such as the one proposed by De Souza Nascimento et al. (2019), which conducted a descriptive research in Brazil in the field of ML development practices. Additionally, it was found that the proposed methodology is in accordance to the findings of the Microsoft Research team (Amershi et al., 2019). The often limited access to high quality data in foreign markets limits the use of ML for international decision-making purposes (Coad & Srhoj, 2019; Chung, Kim, & Ryu, 2017). The speed of learning (here: collecting data) has a high impact on the efficiency of decision-making processes and the speed of internationalization (Neubert, 2018). Johanson & Vahlne (1977) describe this limited access to market knowledge and contacts as the liability of foreignness and outsidership.

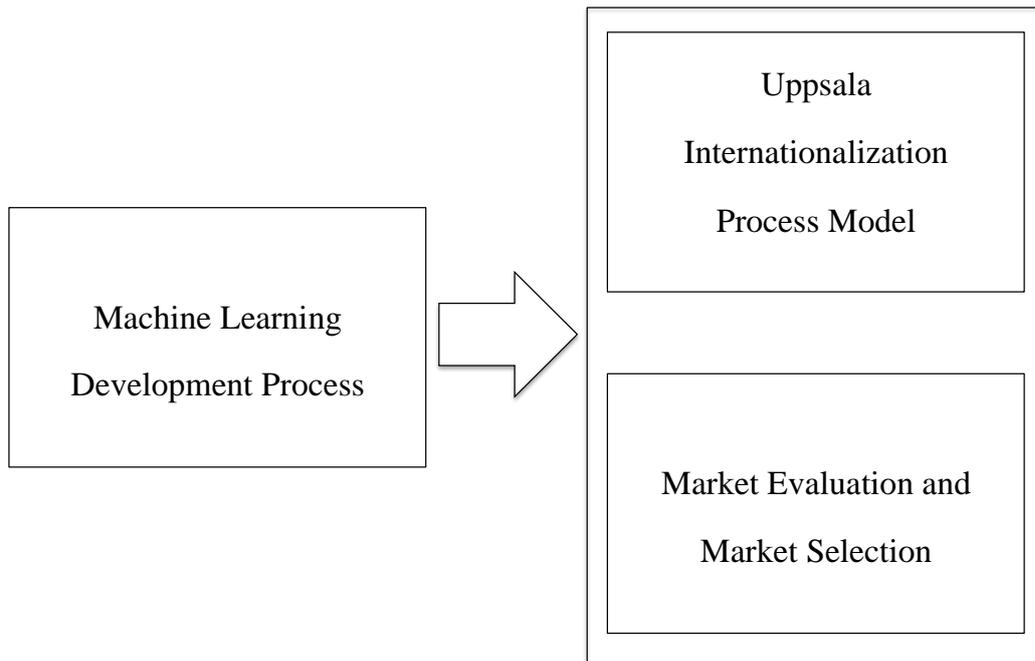


Fig. 1. Conceptual Framework. Source: authors.

## RESEARCH METHODOLOGY

Based on the purpose of this study, a multiple case study research design (Yin, 2018) was selected to answer the research question of this study: What are the perceptions, views, and opinions of subject matter experts about how and why machine learning might be used to support foreign market evaluation and selection decisions?

This study uses a purposive and snowball sampling method (Yin, 2018). After conducting six semi-structured, in depth, online interviews, saturation was reached (Guest, Bunce, & Johnson, 2006). The case study firms are software development firms located in Paraguay and Brazil. They are involved in the development and the consultation of companies in the use of artificial intelligence to support decision-making processes. The subject-matter experts are chief technology officers (CTO) of these firms, having both an academic (= university degrees in computer science) background and practical experience (more than eight years) in the application of ML in decision-making processes.

Data was collected through six semi-structured, in depth, online interviews with CTOs as subject matter experts and corporate documents about machine learning applications from their case study respective software firms as sources of evidence. Saturation was reached after six interviews. The semi-structured, in depth, online interviews were conducted in October and November 2019 and lasted in average 47 minutes. The interview protocols were transcribed and member checking was used to guarantee credibility.

The data was analyzed manually using a thematic analysis and critical event analysis approach (Yin, 2018). Data analysis revealed four themes to answer the research question (Halkias & Neubert, 2020).

## FINDINGS

The following four themes emerged through the conducted thematic and critical-event analysis to answer the research question about the perceptions, views, and opinions of subject matter experts about how and why machine learning might be used to support foreign market evaluation and selection decisions.

Theme 1: The usage of ML to support market evaluation and selection decisions has the potential to improve quality and efficiency of decision-making processes of international managers. After a careful explanation of the concepts of market evaluation and market selection (Neubert, 2013), the subject-matter experts agreed that it is possible to develop a machine-learning algorithm that supports market evaluation and selection decisions, assuming that they have a significant amount of data related to the topic. The majority of the subject-matter experts stated that the quality of the market evaluation and selection decisions can be improved when the data for the training of the algorithm consists of multiple variables and foreign markets, because the possible combinations of variables to predict market attractiveness grows exponentially as more relevant variables are added. One subject-matter expert added that combinations of variables can be missed if the task is performed by humans, who also would take considerable amounts of time in analysing datasets with multidimensionality.

The efficiency of foreign market evaluation and selection might also be influenced according to the subject-matter experts. The subject-matter experts mentioned several factors, which might influence efficiency: on-demand availability of data, results, and regular updates to verify or to update prior decisions, time savings to prepare decisions, coverage of a higher number of variables and foreign markets. Thus, the findings suggest that the usage of ML to support market evaluation and selection has the potential to improve quality and efficiency of decision-making processes.

Theme 2: Data availability is a key factor of ML to support market evaluation and selection decisions. All subject-matter experts stated that they would recommend small and medium-sized enterprises to use machine learning to support market evaluation and selection decisions. Two of the participants said that they would not consider company size as a relevant factor to implement ML. They all stressed the importance of data availability. ML algorithms tend to increase in their accuracy with more data. Nevertheless, one participant stated that thanks to technological tools data collection

can also be automated and another one mentioned that there are methods to increase ML performance with relatively low amounts of data.

Theme 3: “Easy to use” and “easy to interpret” machine learning supervised methods are the most suitable to support market evaluation and selection decisions. Considering the unexplored nature of the usage of ML to support market evaluation and selection decisions, the subject-matter experts considered that “easy to use” and “easy to interpret” methods are the most suitable for this purpose. They recommended supervised algorithms to avoid the “black-box” effect and – as two subject-matter experts added – to increase the trust of decision-makers in the recommendations of ML algorithms. One subject-matter expert clearly expressed that unsupervised algorithms will be “insufficient” to address the issue due to transparency issues. The supervised algorithms that were mentioned as the most suitable algorithms are based on logistic regression and decision trees according to the recommendations of five subject-matter experts. They argued that the results of these algorithms are easier to interpret by decision-makers in small and medium-sized enterprises in contrast to more complex algorithms based on neural networks and support vector machines.

Theme 4: Existing ML development methodology can be applied to support market evaluation and selection decisions. Before explaining to the subject-matter experts the definitions and concepts of foreign market evaluation and selection, they were asked how they would describe the process of applying ML methodologies for decision-making purposes in their case study firms. Then, after discussing how and why ML can support market evaluation and selection decisions, the subject-matter experts were asked again to describe their preferred ML development process to support market evaluation and selection decisions and if it would be different from the process that they described before. Although the ML development processes to support market evaluation and selection decisions described by each subject-matter expert were slightly different especially in the details of each step described and in the terms used, they all agreed that they would use the existing ML development methodologies as described before they were explained the definitions and concepts of market evaluation and selection.

Based on the data analysis, the following process was synthesized using the steps described by the participants and their recommendations about how the UIPM might be integrated and how the state variables consisting of capability variables and commitment/performance variables trigger the need for selecting appropriate markets and calculating their attractiveness (fig. 2). This need is then captured by an ML development process that consists of six steps: 1) collect the data, 2) preprocess the data, 3) transform the data, 4) train/test the algorithm, 5) tune parameters, and 6) execute (fig. 2). The results of the executed machine-learning algorithm form part of the change variables in the UIPM as

decisions are made based on the predictions of the algorithm and then the change variables trigger additional changes in the state variables.

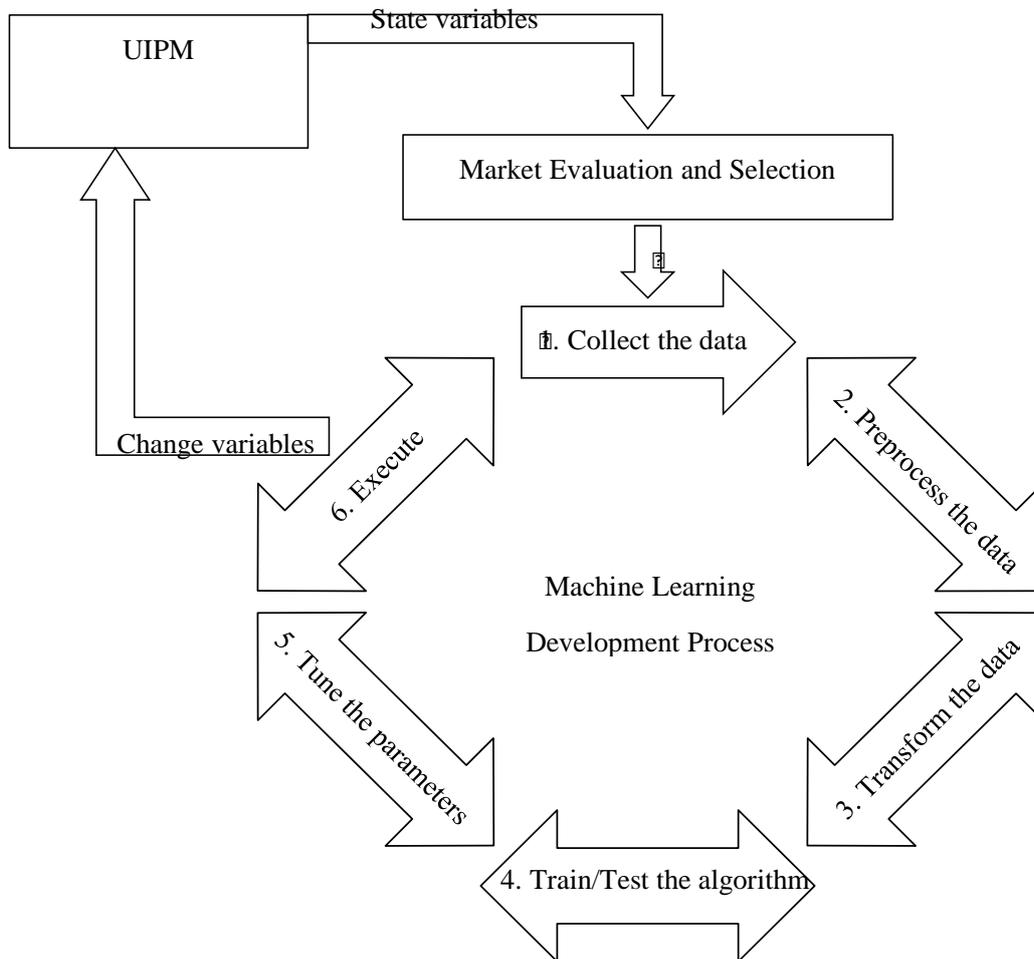


Fig. 2. Integrated Machine Learning Development Process for Internationalization. Source: authors.

## CONCLUSION

Using a multiple-case study research design, we were able to answer the research question of this work, that asked: What are the perceptions, views, and opinions of subject matter experts about how and why machine learning might be used to support foreign market evaluation and selection decisions?.

The results of this multiple case study suggest the following four findings: 1) The usage of ML to support foreign market evaluation and selection decisions has the potential improve quality and efficiency, 2) data availability is a key factor of ML to support foreign market evaluation and selection decisions, 3) “easy to use” and “easy to interpret” machine learning supervised methods are the most suitable to support foreign market evaluation and selection decisions, and 4) existing ML development methodologies can be applied to support market evaluation and selection decisions.

Based on the data analysis, a ML development process is proposed, which integrates the UIPM and includes the following steps: 1) collect the data, 2) preprocess the data, 3) transform the data, 4) train/test the algorithm, 5) tune parameters and 6) execute.

These findings have a limited generalizability due to the chosen research methodology and are valid only for these case study firms. The results of this study might be relevant for researchers who are interested in a further digitalization of decision-making processes. The results might also be relevant for practitioners to better understand the use of ML methodologies in complex and financially important decision-making processes like the evaluation and selection of foreign markets.

A multiple case study research design has several limitations in size and scope that offer new ideas for future research. There is a need to understand in more detail how ML development processes can be optimized and integrated in international decision-making processes. This includes practical experimentation and research about the identified ML development process for internationalization. Future research may also address behavioral aspects of decision-makers using qualitative research methodologies. Future scholarly work might also include quantitative assessments of subject-matter expert perceptions, views, and opinions, and that with qualitative data to provide greater clarification of the statistical significance of the variables of this study or to replicate it with other case study firms from different industries and markets.

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## CLINICAL AND ECONOMIC APPROPRIATENESS IN LABORATORY MEDICINE - AN APPLICATION EVIDENCE

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### ABSTRACT

Appropriateness is one of the most important issues in today's medicine, from a clinical and more in general multidisciplinary point of view. Thus, a contextual and multifaceted perspective of research and management is indispensable for handling it, also as concerns the Laboratory Medicine (LM), which is ever more characterized as a technology-based science. The case study under investigation, i.e. an accredited private hospital in Italy, has permitted to highlight how an adequate quality management system can provide concrete contribution to handle with appropriateness some test batteries for hospitalized patients waiting for Computerized Tomography (CT) or Magnetic Resonance Imaging (MRI). Direct result of the observed technological innovation (glomerular filtration rate instead of Bence - Jones and immune-fixation tests) is the increase of the economic appropriateness for a new LM procedure that is first of all appropriate from a clinical point of view.

*Keywords: Laboratory medicine; Clinical appropriateness; Economic appropriateness; Quality management; Continuous improvement.*

### 1. INTRODUCTION.

Appropriateness in medicine is nowadays one of the cornerstones of good healthcare management, especially for public expenditures (Bauer et al., 2019), as concerns both clinical and economic dimensions, and especially for diagnostic medicine (Cappelletti, 2016). In this respect, one of the medical specialties that are most interested by the scourge of inappropriateness is Laboratory Medicine (LM), either for more usable instrumental hypertrophy, either for defensive diagnostic medicine, either for real need to explore more possibilities of knowledge of specific clinical cases (Cadamuro et al., 2018; Aita et al., 2019; Plebani et al., 2019). With this regard, an adequate quality management system, properly supported by coherent Evidence-Based Medicine (EBM), can be very profitable, leading to significant enhancement in the process and in the service, when they are really inspired to continuous improvement (Price, 2012).

In the current research, concerning a private hospital in Italy as case study, proof of methodological innovation that has enabled an increase of efficiency for a specific LM process has emerged. The results arising from this innovation have showed high significance from different points of view, and in particular, have generated clear evidence of continuous improvement in the enterprise healthcare system, giving further contribution to the concept of appropriateness based on a multidisciplinary approach (Brescia et al., 2019) in LM, but only, at least as can be observed in the case study, in the presence of an adequate quality management system (Lega et al., 2018; Lippi and Plebani, 2019).

The structure of the paper is as follows: after a literature review about medical appropriateness, with a specific focus on LM, a theoretical/practical framework of investigation about appropriateness in LM is object of analysis for the case study development, with further discussion about implications, limitations, and progresses.

## 2. LITERATURE REVIEW.

The essential goal of every healthcare system is to offer efficient services notwithstanding ever more limited funds and growing demand for high quality care. In this scenario, appropriateness about allocation of resources becomes a priority, as it represents a fundamental key to guarantee the potential sustainability of the overall health system.

Several definitions of appropriateness have arisen from the scientific literature, considering both positive effects (Van Leersum et al., 2019) and negative effects (Squires et al., 2019) for patients. This topic is vital in current and future medicine, combining synthetically concepts like efficacy, efficiency, safety, and quality (Price et al., 2016): in fact, different meanings are possible from the different points of view of the various players operating in a healthcare system, and consequently several are the potential dimensions for the investigation, among which two are most probably the most analyzed: clinical appropriateness and economic appropriateness (Lombardi et al., 2016), in the latter case considering also organizational, managerial, and administrative profiles.

More in general, a diagnostic, therapeutic, or rehabilitative intervention is 'appropriate' if it can optimize benefits while minimizing risks. In particular, according to some researchers of the RAND Corporation ([www.rand.com](http://www.rand.com)), appropriateness occurs when «... the expected benefit (for example an increase in life expectancy, relief from pain, reduction of anxiety, improvement in functional capacity) exceeds any negative consequences (eg mortality, morbidity, anxiety, pain, lost working time) with a sufficient margin for which the procedure is worth practicing» (Fitch et al., 2001).

An explorative analysis of the scientific literature provides evidence that a large part of the healthcare services that are usually object of medical provision appears to be inappropriate; in this respect, several studies have highlighted the deleterious effects that inappropriate clinical practice can have on

patients directly – such as negative experiences (Bourne et al., 2010) or even deterioration of health status (Hall et al., 2015) – and indirectly (inefficient use of resources).

When considering causes for inappropriateness, several scholars have tried to determine possible reasons why it could happen. According to Cadamuro et al. (2018), inappropriateness can be effect of:

- excessive use of required, but not necessary, activities (Korenstein et al., 2012);
- underuse of activities that are not required, but appear to be fundamental (Bossuyt, 2012); or
- improper use of required activities whose incorrect interpretation provokes not to obtain fully the expected benefits (Zhi et al., 2013).

For example, in a study conducted in the United States by Sarkar et al. (2017), it was discovered that for 200 patients with hemorrhagic problems inappropriate tests were performed in 78% of cases, thus causing over 200,000 USD of avoidable costs. Another example concerns redundant or repeated laboratory tests, which according to Rogg et al. (2013) occur on average once for each patient transferred from the emergency room, with huge waste of resources.

Nonetheless, consequences of inappropriateness are harmful also because they put patients' health at risk (Makary et al., 2016), and not only because they are wrong from a financial point of view. More in general, in fact, the inappropriateness due to lack of information and/or communication, or due to failure to request and then to implement necessary examinations, is very dangerous as it is potentially in combination with concrete risk of a missed or delayed diagnosis, which can lead to an aggravation of the pathology, an increase in the costs to be incurred, or an extension of the days of hospitalization, as well as a series of adverse events (Giavarina, 2015).

The demand for excessive performance and unnecessary diagnostic tests provokes unacceptable waste of resources, and altogether exposes patients to risks concerning avoidable invasive procedures (Bindraban et al., 2018). The reasons that generate a demand for performances that exceed necessary medical needs are different: among these, for example, the lack of a correct relationship between patients and healthcare operators (Matysiewicz and Smyczek, 2013), but honestly one of the most insidious is the (unfortunately) widespread practice of active defensive medicine, which pushes doctors to prescribe many diagnostic tests, certainly more than those that should be opportune, for the fear of potential medical-legal disputes (Montagnana et al., 2016).

After a general overview about medical inappropriateness, it is possible to highlight from the scientific literature that a central perimeter of investigation within the boundaries of this topic concerns LM, a discipline in which most probably medical knowledge is transformed into technological innovation with a higher rate than in any other clinical field (Gion et al., 2017), as has emerged also in recent times with the Covid-19 pandemic. In fact, the technological progress has increasingly transformed medicine, and LM in particular, from an art, based most of all on the

doctor's personal ability, into a technological science, in which the human component is always indispensable, but in which, honestly speaking, ever more accurate, personalized, and complex laboratory tests and examinations are prevailing.

Therefore, nowadays clinical decisions are extremely influenced by the information deriving from laboratory analyses, although their costs, according to some estimations, represent for example only 2% of overall health expenditure in Italy, coherently to the rest of Europe (Rohr et al., 2016). The nowadays success of LM is fundamentally due to various factors, including the possibility of having real-time responses, identifying risk factors in asymptomatic subjects, making early diagnoses, or controlling the disease progression (Lippi et al., 2017).

From these premises, it is evident that LM appropriateness is essential to ensure «... the right test, using the right method, at the right time, to the right patient, with the right costs and to produce the right result» (Plebani et al., 2019). Thus, laboratory information becomes essential only if it is able to generate value for the patient: appropriateness in LM is not limited to the examinations prescription, and therefore to the pre-analytical phase, but it is also capable to influence all the clinical decision-making process. If not adequately governed, managed, and controlled, inappropriateness in LM can provoke not only waste of financial resources, but could also act on patients' safety, and therefore, on the final outcome (Sciacovelli et al., 2017), and that is why to focus on this specific topic is fundamental for the overall healthcare system.

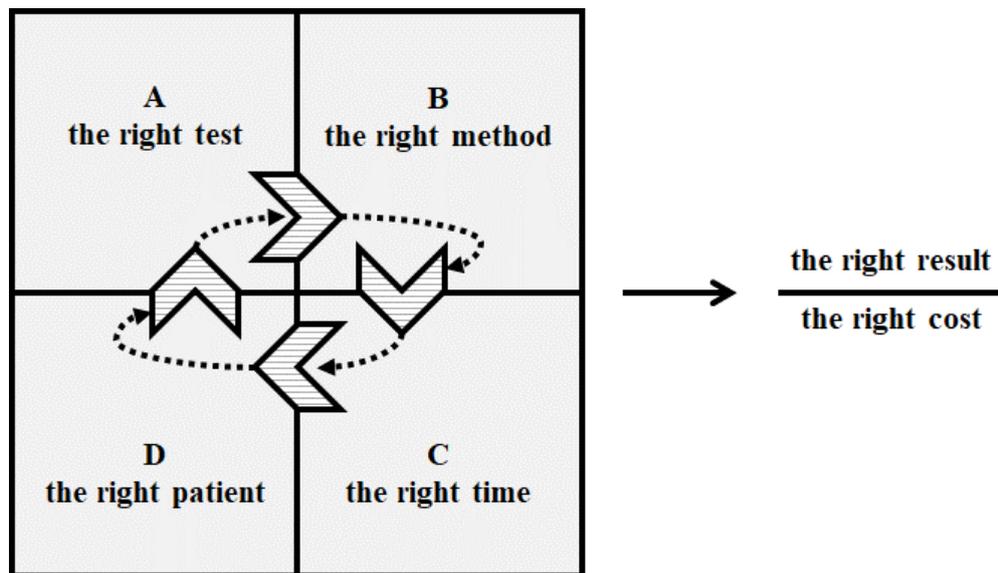
### **3. A POSSIBLE PERSPECTIVE OF INVESTIGATION ABOUT APPROPRIATENESS IN LM.**

As emerged from the literature review, appropriateness, together with its opposite concept of 'inappropriateness', is a commonsense idea, even though quite difficult to determine exactly without assuming a contextual and multidisciplinary point of view. This is even truer for LM, where appropriateness cannot be object of unique definition using absolute and general terms, but depends on the situation, time exigencies, and modalities according to which the diagnostic tests are required.

Thus, most probably, appropriateness cannot be achieved by adopting a unique procedure: instead, it should be considered as an orientation that inspires an underlying complex process, through the mindful application of opportune tools and methods. That is why, for example, concrete appropriateness, most of all when prescriptive, finds an essential antecedent in adequate training not only for clinicians and clinical pathologists, but also for information technology experts (Aggelidis and Chatzoglou, 2008), considering the above mentioned vision of LM as technological science. In this respect, it is fundamental to adopt the most appropriate and updated diagnostic guidelines coming from accredited scientific institutions, naturally also as regards the field of health informatics.

From the point of view of the medical practitioners, however, a very acceptable definition of appropriateness for LM is that one provided by Plebani et al. (2019), above mentioned in the literature review. According to this description, a theoretical/practical framework for the governance of medical appropriateness in LM should consider at least four dimensions of investigation, all oriented to generate an acceptable “right result right cost ratio” (cf. Figure 1):

- 1) the right test
- 2) the right method
- 3) the right time
- 4) the right patient (those who need).



*Figure 1. A possible model for appropriateness in LM. Authors' elaboration from Plebani et al. (2019).*

*Taking the right test* means choosing the examinations that are capable to change the diagnostic / clinical / therapeutic conduct of the physician. In fulfilling this commitment, communication, sharing, and consulting among clinical physicians (prescribing), laboratory technicians (executing), and laboratory physicians (analyzing) are decisive. Thus, a laboratory exam must be prescribed to answer a specific clinical question, clearly indicated in the request by the doctor applicant.

*Taking the test* involves the selection of the most adequate analytical practices, procedures, and systems that are available at the state of the art, favoring specificity, accuracy, minimization of the degree of uncertainty, reliability, sensitivity, promptness, productivity, and so forth; these competences, together with the use of medical statistics techniques, are part of the indispensable background that a LM organization needs for reaching high quality performances. In this respect, continuous adoption of the up-to-date standards required by EBLM (Evidence-Based Laboratory Medicine) is crucial.

*Taking the test with the right method at the right time* implies the application of two fundamental concepts. First, the most suitable ‘diagnostic window’, intended as the most opportune choice about

the time when the exam results can be correlated with the physio-pathological evolution; and second, the TAT (Turn Around Time), intended as the time that elapses between the collection of the biological sample and the communication of the exam response, in order to make the examination 'clinically useful'.

*Taking the test with the right method at the right time to the right patient (those who need)* concerns both efficacy and efficiency. The medical tests should be carried out taking into account two essential attributes at least, i.e. 1) the purpose and / or plausibility and 2) the optimal use of resources; unnecessary examinations, if performed to those who do not need, can generate excessive expositions for those who do not need and divert resources from those who actually have need.

As result from this global analysis from a practical point of view, a medical exam can be considered appropriate, according to a 'positive' perspective, if it fits the four abovementioned dimensions; instead, a medical exam can be considered inappropriate, according to a 'negative' perspective, if it does not fit the four abovementioned dimensions. More in general, however, any medical exam can be potentially inappropriate according to a negative perspective if it is not essential to define or confirm a diagnosis or modify the clinical outcome: that is why appropriateness can be considered only from a contextual point of view (what is right in a setting, can be not right in another setting: Lavis and Anderson, 1996), and thus case management is the most opportune technique of investigation, always involving clinical physicians (prescribing), laboratory technicians (executing), and laboratory physicians (analyzing).

In this respect, classification of the LM exams, which in the past was based on the use of extensive test profiles with respect to the suspected diagnosis or the ongoing pathology, has been reduced hugely by the most recent criteria about appropriateness. The use of 'a priori' protocols has often involved execution of redundant or useless exams, with consequent risk for patients and waste of resources. The 'new' diagnostic profiles must contain a minimum / indispensable number of examinations pertaining to the question ('case'), thus requiring a global and consequently managerial approach (Fletcher and Polychronakis, 2007) to be adopted by all the operators in the supply chain of the LM.

#### **4. RESEARCH OBJECTIVES AND METHODOLOGY.**

Having in mind the above deliberations, the current study aims at responding to the following research question:

*"Is the application of the right-test-right-method-right-time-right-patient framework capable of detecting not only clinical, but also economic appropriateness?"*

Considering the previous issues, the most adequate approach for this kind of investigation should be the case study methodology. The healthcare organization that has been selected for the analysis is the

'Casa di Cura Tortorella S.p.A.', an Italian private hospital that is located in Salerno, in the Campania region, in the South of Italy; the specific motivations for the choice of this enterprise will arise together with its following description.

## **5. THE FIELD RESEARCH: THE 'CASA DI CURA TORTORELLA S.P.A.' CASE STUDY.**

Italy is nowadays one of the most developed economies in the world, being part of the G20 and above all of the G7, being able to count on a Gross Domestic Product (GDP) estimated for 2019 around 2.442 trillion USD, even though, considering the GDP per capita, compared to a population of about 60 million inhabitants, the Italian nation ranks only at the 28th place in the world (International Monetary Fund statistics at October 2019). Understandably, for 2020 these figures will be interested by huge changes due to the Covid-19 pandemic.

In this economic scenario, in which the impact of the great modern transformations from digitalization to globalization is clearly visible, since 1978 the Law No. 833 is active, which has introduced, inspired by the British model, a national health service that is universal and (almost) free, in the sense of having separated the price of the service from the cost of the service, which is instead financed for the most part by the general taxation.

To guarantee economic sustainability for this operation, since 1992 the Legislative Decree No. 502 is active, which has introduced two fundamental novelties: regionalization and corporatization (Lega et al., 2018). With the second pillar, i.e. corporatization, specific criteria for the management of public healthcare have been introduced, formally and substantially inspired by the functioning of corporations in general and private corporations in particular as concerns effectiveness, efficiency, and affordability, naturally with observance of the public dimension of the public healthcare context. In this respect, accredited private healthcare organizations are equivalent to public healthcare organizations: they have been recognized by the institutions in charge, i.e. the Regions by virtue of the aforementioned regionalization, as deserving to be 'employed' as subsidiaries for national / regional health services, with identical operating criteria.

Thus, in the current research, an Italian accredited private hospital has been investigated as case study, because it can be considered as a common case, being its functioning formally similar to other organizations working for the Italian National Health Service; but also as an extreme case, because the substantial commitment about the 'right' functioning of the enterprise is inevitably higher for accredited private healthcare organizations, in which – unfortunately – the entrepreneurial and managerial sentiment is much more urgent than in the public context (for common cases: Yin, 1994; for extreme cases: Eisenhardt, 1989). The following case study is even more peculiar, because it

concerns the Campania Region, which in 2020 is still managing the debt rescheduling plan with the National Ministry of Health, due to the high level of financial debt that has been gathered in the last decades, even though at the beginning of 2020 the Regional Health Service is no more under governmental administration.

The Casa di Cura Tortorella S.p.A., founded in 1954, has the following structural features (source: [www.tortorellaspa.com](http://www.tortorellaspa.com)).

- No. 150 hospital beds (number of patients' seats under national / regional health service).
- No. 4 operating rooms (one of which angiographic).
- No. 1 post-surgical sub-intensive therapy room.
- No. 8 hospitalization functional units.
- No. 1 policlinic unit equipped with 9 examination rooms.
- No. 1 medically assisted procreation center.
- No. 1 diagnostic imaging unit (executing Computerized Tomography - CT and Magnetic Resonance Imaging - MRI).
- No. 240 employees/consultants.

In the enterprise perimeter there exists also an ambulatory / laboratory center ('Centro Polidiagnostico Morgagni'). From a global point of view, therefore, the case study under analysis is evidently well structured, and then adequate, to go under investigation, and in truth it reveals proof of methodological innovation that has enabled an increased efficiency for a specific LM process.

In fact, moving from the most recent scientific evidence (SIRM - Italian Society of Medical Radiology and SIBIOC - Italian Society of Clinical Biochemistry) about the prescriptive appropriateness of the biochemical tests to permit the assessment of the risk of contrast-induced nephropathy for hospitalized patients waiting for CT or MRI to be executed with contrast agents, the Bence - Jones protein urine test (searching kappa and lambda light chains) has been excluded from the set of preparatory laboratory tests, and replaced by the calculation of the glomerular filter. The results arising from this process innovation have showed high significance from different points of view.

Previously, in fact, the search for the kappa and lambda light chains was performed on all received samples and subsequently, immune-fixation was only performed on samples that had been resulted as positive for the chains (approximately 11% in 2017 and approximately 17% in 2018 of the total numbers of chain research for the current case study). The global analytical examination of a (positive) sample therefore consisted of two types of tests, with its organizational burden in terms of number of operations, consumption of resources, and overall clinical risk.

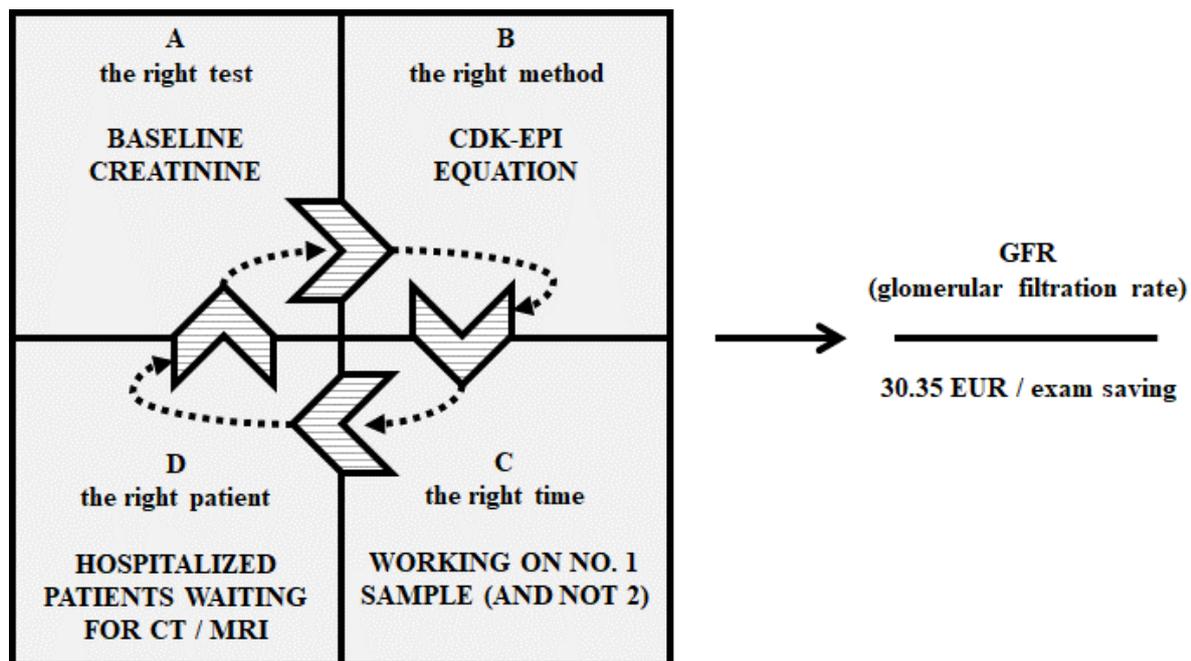
With the application of the calculation of the glomerular filtration rate, using the equation of CDK-EPI (Chronic Kidney Disease Epidemiology Collaboration) applied to the value of the baseline creatinine,

a saving around 30.35 EUR per exam has arisen, only implementing the elimination of the Bence - Jones protein urine test, but naturally in compliance with prescriptive appropriateness in LM, based on the best available scientific evidence (cf. Box 1). A simple proportion between the number of tests of the case study enterprise and other organizations, public or accredited-private, working for the national / regional health service in Italy, would provide reason of the potential saving to be reached.

|   |   |           |
|---|---|-----------|
| Previous exams: Bence - Jones test (10.60 EUR) + immune-fixation test (20.88 EUR) | = | 31.48 EUR |
| Current exams: application of CDK-EPI equation to baseline creatinine             | = | 1.13 EUR  |
| Saving: cost of previous exams (31.48 EUR) – cost of current exams (1.13 EUR)     | = | 30.35 EUR |

*Box 1 - Calculation about saving (values from the 2019 price list of the regional health service in Campania).*

In Figure 2 the conceptual definition by Plebani et al. (2019) about appropriateness has been practically applied to the case study under investigation adopting the theoretical/practical framework that has been developed in Figure 1. Consequently, it is possible to provide positive response (“Yes”) to the research question under analysis (“Is the application of the right-test-right-method-right-time-right-patient framework capable of detecting not only clinical, but also economic appropriateness?”).



*Figure 2 – A possible application of the model for appropriateness in LM (about GFR).*

The application in question represents clear evidence of the valuable impact that continuous improvement in healthcare can provide, giving further tangible substance to the concept of multidisciplinary appropriateness (Brescia et al., 2019) in LM, but only, as above mentioned, in the presence of an adequate quality management system (Lega et al., 2018; Lippi and Plebani, 2019).

## **6. SCIENTIFIC AND MANAGERIAL IMPLICATIONS.**

Main theoretical contribution of this research is the confirmation of the previous scientific literature, even in a case study approach, that medical appropriateness is a very complex concept, which can be object of investigation and management only from a multidisciplinary point of view. Main managerial contribution of the current research is the development of a theoretical/practical framework that could be used for evaluating, organizing, and managing the multidisciplinary concept of appropriateness in LM, but only if supported by continuous references to scientific guidelines in the field.

## **7. RESEARCH LIMITATIONS AND FUTURE DIRECTIONS.**

Fundamental constraint of the research is the case study methodology, even though the unit under investigation seems reliable, both from a common and from an extreme point of view. However, further investigation involving other case studies would constitute most probably the natural development of the current research (quantitative limitation). Nonetheless, other perimeters of investigation, not limited only to the Campania region, would certainly increase the global reliability of the research, also because in Italy almost every Region has its own regional health service (qualitative limitation).

Another possible future line of research, beyond the abovementioned ones that could permit to overcome the abovementioned limitations, could involve the approach, rule, or procedure that the clinical management of a healthcare organization should follow in deciding when considering or not to protocol an exam in a test battery. International and national guidelines are essential sources about, but institutional laws, regulations, and instructions in question are the mandatory point of reference: a possible circumstance to investigate could be that one concerning the situation in which guidelines suggest for something different with respect to the laws, regulations, and instructions, situation that is very frequent in the continuously progressing technology-based medicine, above all when LM.

## **8. CONCLUSION.**

One of the most daring profiles for health services governance in modern societies and economies is appropriateness, not only from a medical, but also and above all from a multidisciplinary point of view. In fact, the rising negative impact of defensive medicine has caused a large amount of medical services, from diagnosis to therapy to rehabilitation, to be prescribed not because useful, but only because 'usual', most of all in LM.

Naturally, invention, evolution, and progress can offer continuous changes to the medical environment, but a reasonable advancement can derive only from a balanced combination of

technological innovation and multidisciplinary feasibility, with careful reference most of all to institutional prescriptions: when this blend is possible, as happened in the case study under investigation, risk for patients decreases and saving for the overall system increases, in a win-win combination. Also for LM, therefore, appropriateness emerges as a multidisciplinary concept, object of potential governance when applying the theoretical/practical framework that has been developed in the current research, but most of all when considering it in a global process of quality management and continuous improvement.

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## METAPROFIT OF ORGANIZATIONS: AN APPROACH FOR OVERCOMING THE FOR-PROFIT/NONPROFIT DICHOTOMY

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### ABSTRACT

Driven by changing institutional environments and concepts such as social entrepreneurship, we have recently seen a development of organizations that defy the classical dichotomy between a nonprofit and for-profit orientation. The hybrid nature of these organizations does not only pose challenges for taxation and management issues, but also for academic research. It puts into question the handed down distinction between nonprofit and for-profit organizations used to describe organizational entities, and in particular, the central role given to the notion of profit in determining the ontology of organizations. A more refined understanding of the hybrid nature of recent organizational forms presents an opportunity to rethink the notion of firm, the centrality of organizational purpose, and the usefulness of previously established categories. This article explores why organizations shift their attention from profit towards elements that are beyond profit, without neglecting the economic objectives that contribute to their sustainability, which we refer to as “metaprofit”. It contributes to the literature by critically examining the appropriateness of the frequently used categorical and often too simple distinction between for-profit and nonprofit organizations, by providing alternatives to overcome this critical dichotomy, and, in this context, elaborating on the notion of metaprofit.

*Keywords: nonprofit organizations, metaprofit, hybrid organizations, category cognition, dichotomy, organizational purpose*

### INTRODUCTION

During the last few decades, the emergence of several organizations that cannot be categorized as a for-profit or nonprofit organization has challenged long-established classifications and understandings. The exclusive distinction between the for-profit sector, which generally includes all types of organizations selling products or offering services with the dominant purpose of generating financial revenues, and the nonprofit sector—including any type of organization oriented towards addressing social or public purposes without being institutionally related to the government and without any obligation to redistribute profits to its owners or directors (Salamon and Anheier, 1997)—thus has become outdated. While it proved to be useful in the past to solve specific matters, e.g., to create legal

frameworks for organizations, it is currently struggling with new organizational entities that cannot exactly be categorized as merely belonging to either the for-profit or the nonprofit sector.

These preliminary thoughts demonstrate the existing dichotomy applied to the understanding of organizations and the resulting limitations of the available categories to encompass a growing organizational diversity. This dichotomous approach fails to appropriately describe organizations created by persons that use entrepreneurial principles to organize, create, and manage ventures oriented towards achieving a desired social change, without sacrificing economic goals (Defourny, 2001). Overcoming this dichotomy requires solving diverse problems. On an epistemological level, it requires rethinking how organizational entities are understood and evaluating the suitability of the categories that are used to describe organizational reality. On a legal level, it becomes necessary to develop a framework that treats organizations that do not fit into the existing organizational forms appropriately. On a managerial level, management practice, education, and research must be redesigned to better suit increasing organizational diversity and embrace its complexity. Finally, from a business ethics perspective, the role of profit in organizations has to be further discussed enlarging previous research (e.g. Vranceanu, 2014), because it has become one ontological determinant of organizations.

The objective of this article thus is threefold. It first seeks to review the existing literature concerning the juxtaposition of nonprofit versus for-profit organizations. Second, approaches for overcoming the deficits resulting from this dichotomy are examined. This serves as a basis for developing the concept of metaprofit as a new possible alternative to explain the complex phenomenology that unites for-profit and nonprofit characteristics of organizations and thus takes into account their hybrid nature. Accordingly, we initially present the for-profit/nonprofit dichotomy, before we go on to discuss definitions and concepts that have attempted to grasp organizational diversity. Finally, we present the idea of metaprofit as a fruitful alternative to overcome the conceptual and practical weaknesses resulting from the assumed dichotomy. We explain how metaprofit can enrich and improve management, but also elaborate on the managerial and cognitive implications it entails.

## **THE FOR-PROFIT/NONPROFIT DICHOTOMY**

The practical need for a kind of taxonomy of organizations emerged from the necessity to find a legal framework applicable to a variety of organizations and their activities in society, primarily for reasons of taxation (Hall, 2006; Weisbrod, 1988). This process aimed at granting certain benefits to organizations with a social purpose. There was a ubiquitous need to find a criterion to differentiate between organizations with different purposes, and the easiest and foremost criterion used to this end during

the last fifty years has been the profit-seeking goal of an organization (Salamon and Anheier, 1997). Doing so clearly determined whether certain organizations served as part of the market economy by selling their products or services, or whether they were oriented towards the production of welfare in a broader sense. An alternative to the profit-seeking goal as an instrument to deal with organizational diversity has been to create a “complex of institutions” that belongs to different sectors such as the private and the public sectors, and as a residual alternative, the third sector that includes nonprofit-seeking organizations (Salamon and Anheier, 1992b). While the idea of the existence of a nonprofit sector has consolidated over time (Anheier and Salamon, 2006; Salamon and Anheier, 1992b), the difficulties in defining the limits of such a heterogeneous group of organizations continue to remain unresolved and constitute a recurrent topic of research (Morris, 2000; Salamon and Anheier, 1992a).

The criteria that have been useful in differentiating organizational types during the last fifty years—particularly in the case of some unconventional organizations—are increasingly facing serious limitations. The distinction between for-profit and nonprofit organizations has never been as unclear as it is today (Ben Ner, 2002; Bromley and Meyer, 2017; Dees and Battle Anderson, 2003; Laasch, 2018). For several reasons, the (non-)existence of a profit-seeking goal seems to be outdated in explaining the nature of contemporary organizations of a hybrid nature, such as social enterprises (Defourny and Nyssens, 2017; Young and Lecy, 2014). This has become increasingly evident as managers and leaders of such organizations are facing difficulties in finding adequate legal frameworks, or a cognitive environment that allows collaborators, customers, and stakeholders to understand organizational novelty. This scenario is not always helpful for management development owing to several reasons, one of them being the for-profit/nonprofit dichotomy.

While this divide has partly worked well towards juridical ends, it does not work towards embracing the complexity of organizational isomorphism (Dart, 2004; Maier *et al.*, 2016; Nicholls, 2010). Essentially, a logical analysis of this distinction reveals the existence of an assumption that is widely accepted, but a fallacy, since it rests on the false assumption that organizations are either for-profit or nonprofit (Loza Adauí and Mion, 2016).

Such a false dichotomy is a particular kind of fallacy, i.e., an argument that is logically flawed, but is “usually persuasive and often upon the first examination appears to be sound in form and content” (Engel, 1982, p. 76). Dichotomies are informal fallacies, informal “because, although formally valid, their persuasiveness rests on ‘material’ (as opposed to ‘formal’) factors, such as ambiguity, the use of slanted language, and prejudice. The error in these arguments (...) lies in their content, and not in their form or structure” (Engel, 1982, p. 76).

A false dichotomy offers an unsound argument because it consists of unfounded or unproven assumptions. This argument “presumes that a distinction or classification is exclusive and exhaustive

when other alternatives exist.” (Engel, 1982, p. 135) Presented in terms of set theories, a dichotomy is any splitting of a whole into exactly two non-overlapping parts, which are jointly exhaustive, i.e., everything must belong to one party or the other, and is mutually exclusive, i.e., nothing can belong simultaneously to both parts. Figure 1 graphically presents the differences between true and false dichotomies.

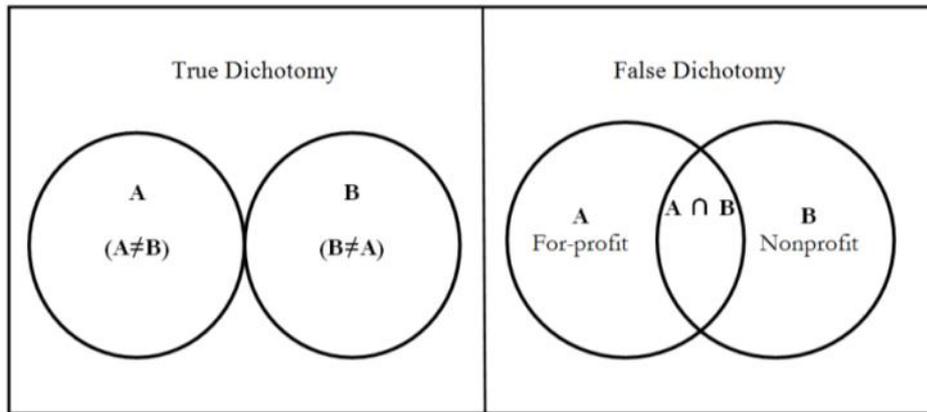


Figure 1. False and True Dichotomies

Dichotomies are usually expressed using the formulation “either X or Y is true” or “either X, Y, or Z is true” (Govie, 2010, p. 196) – depending on the number of options named – and the argument usually takes on the following form:

|               | Disjunctive syllogism     | Example  |
|---------------|---------------------------|--|
| Major premise | either A or B is true.    | Organizations are either for-profit or nonprofit |
| Minor premise | A is true.                | The organization X is for profit                 |
| Conclusion    | Therefore, not B is true. | Therefore, the organization X is not nonprofit.  |

Table 1. False Dichotomy on a Syllogism

As presented in the example, the argument itself is valid because it has a proper form and the conclusion is derived from the premises; however, we observe a false dichotomy here because the major premise is false (Rainbolt and Dwyer, 2012, p. 163). It would be necessary to find only one organization that cannot be exclusively categorized as for-profit or nonprofit (Popper, [1935]1962), and indeed, not only one but several organizations can be categorized in terms of both the aforementioned options concurrently. Therefore, using the profit-seeking goal of an organization as an ontological determinant is insufficient; for example, in the case of a hybrid organization, for which the profit-seeking goal is only one of the multiple organizational goals, and its purpose and main ontological determinant transcend this goal.

## IF NOT FOR PROFIT, FOR WHAT? DEFINITIONAL ATTEMPTS TO OVERCOME THE DICHOTOMY DEFICIT

Some of the main difficulties that this new type of organization faces emerge on adopting a juridical

form to operate in a particular country (Battilana *et al.*, 2012). Another problem arises from establishing suitable governance and accountability systems that permit the integration of multiple organizational objectives (Anheier and Krlev, 2015; Ebrahim *et al.*, 2014; Mair *et al.*, 2015; Makadok and Coff, 2009). There are also difficulties in the process of finding resources to surpass successfully the start-up phase and the early stages of organizational existence (Renko, 2013). During the recruitment process, identifying employees with a non-dichotomous approach towards organizations (biased by their education and/or prior working experience) is difficult (Brewster and Cerdin, 2018; King, 2017). Moreover, trying to find adequate financial instruments to guarantee operation and growth is challenging (Battilana *et al.*, 2012; Battilana *et al.*, 2015). The for-profit/nonprofit dichotomy in the mindset of the respective actors contributes to these difficulties. In fact, over the last few decades, not only has managerial praxis struggled with this dichotomous rigidity, but researchers and managerial scholars have tried to overcome it by assaying several ways to view these kinds of organizations (hybrid organizations, mission-driven organizations, value-driven organizations, blended value organizations, low-profit limited liability company (L3C), benefit corporations, four-sector enterprises, social enterprises, and non-market entrepreneurship) from a different perspective. For definitional and conceptual clarity, we first offer an overview of the definitions behind these categorizations. We elaborate on the more important and commonly used categories such as hybrid organizations, mission-driven organizations, values-driven organizations, L3C, blended value, and benefit corporations.

#### *Hybrid organizations*

A hybrid organization is a frequently used label (e.g. Battilana and Dorado, 2010; Battilana *et al.*, 2012; Billis, 2010; Boyd *et al.*, 2009; Grassl, 2011; Haigh and Hoffman, 2012; Hoffman, 2009; Hoffman *et al.*, 2012; Jäger and Schröer, 2014). Authors referring to a “hybrid” in the organizational context do so analogically. It is a term taken from biological taxonomy as discussed by McMullen (2018). According to the Encyclopedia Britannica, hybrid refers to the “offspring of parents that differ because of genetically determined traits,” for example, as a result of the interbreeding of animals or plants from different species, genera, or family.

One of the oldest definitions of hybrid organizations refers to them as “market-oriented, common-good mission-centered organizations that operate in the blurred space between traditional for-profit and nonprofit enterprises” (Boyd *et al.*, 2009, p. 9). This definition emphasizes the hybridity between the for-profit and the nonprofit realm and is re-elaborated by Hoffman *et al.* (2012, p. 133) as follows: “Hybrid organizations call for mission-centered business models that employ market tactics to address social and environmental issues.” The emphasis changes towards the complementarity of purposes and tactic strategies adopted by these organizations.

| Author  | Definition  |
|---|---|
| Boyd et al., 2009, p. 9   | market oriented, common-good mission-centered organizations that operate in the blurred space between traditional for-profit and nonprofit enterprises  |
| Hoffman et al., 2012, p. 133  | hybrid organizations call for mission-centered business models that employ market tactics to address social and environmental issues  |
| Grassl, 2011, p. 110  | Hybrid business models are meant for the market (i.e. the for-profit sector), but they add the 'logic of gift' (CV 34, 36) both to 'commercial logic' (CV 36) and to the 'logic of the State' (CV 39)   |
| Minkof, 2002, p. 382  | organizational hybrids (...) are combinations of disparate elements – structural or institutional – that represent modes of more or less formal adaptation to environmental uncertainty.  |
| Brandsen, et al., 2005, p. 750 and Brandsen and Karré, 2011, p. 828 | heterogeneous arrangements, characterized by mixtures of pure and incongruous origins, (ideal) types, cultures, coordination mechanisms, rationalities, or action logics.   |
| Battilana, et al., 2012, p. 52                                      | this hypothetical organization [the hybrid ideal] is fully integrated – everything it does produces both social value and commercial revenue (...). Managers do not have a choice between mission and profit, because these aims are integrated in the same strategy. More importantly, the integration of social and commercial value creation enables a virtuous cycle of profit and reinvestment in the social mission that builds large-scale solutions to social problems. |

Table 2. Definitions of Hybrid Organizations

There is an additional group of researchers that define hybrid organizations as belonging to the intersection between state, private, and civil society sectors (Brandsen and Karré, 2011; Karré, 2011) or an evolution of non-profit organizations that adopt a commercial orientation (Litrico and Besharov, 2018), thereby making it clear that hybridity can include other elements (Brandsen *et al.*, 2005). Hybridity, however, does not refer to an entirely new entity. According to Grassl (2012, p. 39), it is relevant to clarify that in social sciences, hybridity has usually been understood as “a simple mixture of characteristics on a continuum between two opposite poles,” and therefore, it is indirectly based on the for-profit/nonprofit dichotomy. Moreover, Grassl (2012, p. 39) emphasize that this “hybrid nature [...] is not a contingent and empirical fact [...], but an analytical truth” that can be applied to bridge diverse divides, according to a particular criterion of classification. The question that remains unanswered regarding hybrid organizations refers to the assumption of dichotomous thinking and the right criteria of classification to adopt. The “hybrid” denomination, however, cannot fully explain that organizations aimed to multiple objectives are not a rare or pathological phenomenon, but a new organizational expression.

#### *Mission-driven and values-driven organizations*

When organizations are called mission-driven (Brewster and Cerdin, 2018; Cetindamar and Ozkazanc-Pan, 2017; George and van de Ven, 2001; Russo, 2010; Wang, 2009) or values-driven (Barrett, 2006; 2017; Cohen and Warwick, 2006), the emphasis relies in the levels of axiological or teleological integrity within an organization. The level of coherency and alignment of an organization and its management with a particular purpose is at the center of attention. For example, for Russo (2010, p. 5), “a mission-driven company refers to a for-profit enterprise that seeks to simultaneously meet profit goals and

social and environmental goals that reflect the values of its owners." For Cohen and Warwick (2006, p. 9-10), a values-driven organization gathers productive and motivated employees "working for something they believe in", loyal and forgiving customers, and sustainable and humane business. Barrett (2006) emphasizes the internal coherence between values and the organization. In his words, "the values of the organization should be pervasive. They should drive all aspects of decision-making and be reflected in every system and process. They should underpin and be reflected in the individual behaviors of the leaders, managers, and staff; and the collective behaviors of the organization. They should become part of the organization's cultural DNA" (Barrett, 2006, p. 6-7).

Research on this category of organizations has attributed the term "mission" to the management philosophy adopted in a firm and the comprehensive processes it can initiate (Wang, 2010), or has been used to refer to organizations based on a particular spirituality or religion. Bruni and Smerilli (2009) demonstrate the relevance of certain elements related to these types of organizations. According to them, the identity and the activities carried out by values-based organizations are essentially interlinked; this identity is intensely linked to a core group of members that essentially embody the values of the organization and that are intrinsically motivated (Bruni and Smerilli, 2014; 2009).

#### *Blended value, benefit corporations, and L3C*

Another way of understanding these organizations is to focus on the way they treat financial revenue or the way they are legally constructed. Emerson (2003, p. 38) demonstrates that "the core nature of investment and return is not a trade-off between social and financial interests, but rather the pursuit of an embedded value proposition composed of both." This approach is commonly assumed and is a symptom of a dichotomous approach towards the value that has been already questioned (Castellas *et al.*, 2018; van der Linden and Freeman, 2017; Porter and Kramer, 2010).

In response to the rigidity of legal frameworks in the last few years, some countries have developed possibilities for these new organizations in the form of institutional benefits. One such benefit is the L3C, which enables an organization to access private funding along with funding in the form of grants or program-related investments usually from privately held foundations, under the condition that these funds are used for charitable purposes, and not primarily for making profits (Marcum and Blair, 2011). Another more diffused legal alternative, are benefit corporations (B-Corps), a juridical form already adopted by the legislation of 34 states in the US, and since 2015 in Italy and Puerto Rico. According to André (2012, p. 133), these new types of organizations appear "to enhance corporate social responsibility by providing legal protection to management that wants to both maximize shareholder income and pursue a social or environmental agenda."

While the attention received by B-Corps has increased over the last few years (Hiller, 2013; Rawhouser *et al.*, 2015), it is clear that more than a new legal framework is needed to facilitate organizational

activities. This is evident from, for instance, the lack of ad hoc accounting practices capable of representing value creation in a manner that includes financial and social factors (Sabeti, 2011).

This intent to answer to dichotomous thinking enables classifications based on legal definitions to be dependent on the law and therefore relative to the country, the society, and the political milieu that legitimizes laws. While, on the one hand, the recognition of the contingent nature of law is needed for the development of new legal frameworks, on the other hand, the process of law creation is slow and not always capable of responding promptly to the needs of organizational diversity in the same way across different countries and cultures.

### *Social enterprise*

A social enterprise, and likewise social business, is another commonly used label to identify organizations that do not fit into traditional categorizations. Since the seminal work of Dees (1998), academia has worked intensively on a definition of social entrepreneurship and social enterprise. While the social orientation of entrepreneurship can be recognized in several for-profit and nonprofit organizations—although in different measures and forms—, the term “social enterprise” wants to identify organizations specifically dedicated to a double objective, economic and social. The EMES Research Network has made significant contributions in Europe by defining social enterprise, trying to gather consensus in academia, and inspire legislation in different countries (Borzaga, 2013, p. 318; Borzaga and Defourny, 2001; Defourny, 2009; Defourny and Nyssens, 2010). They define social enterprise in a structured manner, and they have included three dimensions and several criteria to be fulfilled by an organization for it to be called a social enterprise. Table 3 presents the structured definition of the EMES Network:

| Dimensions               | Criteria   |
|--------------------------|--|
| Economic-entrepreneurial | <ol style="list-style-type: none"> <li>1. Continuous activity producing goods or providing services.</li> <li>2. At least the partial use of costly production factors (e.g., paid work).</li> <li>3. A high degree of autonomy and, hence, a significant level of economic risk.</li> </ol>   |
| Social                   | <ol style="list-style-type: none"> <li>1. An explicit social aim of serving the community or a specific group of people.</li> <li>2. The production of goods/services that are characterized by a general-interest of meritorial nature.</li> </ol>  |
| Ownership-governance     | <ol style="list-style-type: none"> <li>1. Collective dynamics involving people belonging to a community or to a group that shares a certain need or aim.</li> <li>2. A decision-making process that is not based on capital ownership.</li> <li>3. Representation and participation of customers, stakeholder orientation, and a democratic management style.</li> <li>4. A total non-distribution constraint or a partial non-distribution constraint such that the organization distributes profits only to a limited extent, thus avoiding profit-maximizing behavior.</li> </ol> |

Table 3. *Social Enterprise Definition of EMES Network* [Adapted from Borzaga (2013)]

Research on social enterprises and social entrepreneurship has experienced overwhelming growth in the last few years and is gaining popularity in academia (Hota *et al.*, 2019; Mongelli *et al.*, 2018). However, some critical voices state that the adjective "social" is associated with normative or moralistic content (Lautermann, 2013) because the need to put the adjective "social" before the enterprise indirectly assumes that the traditional enterprise is less social or not social at all. Recent research on the internal dynamics of social enterprises demonstrates the existence of several tensions—such as the risk of mission-drift (Wolf and Mair, 2019) or the influence of external stakeholder (Ramus *et al.*, 2018)—that these organizations face as a consequence of "their commitments to both social missions and business ventures" (Doherty *et al.*, 2014; Siegner *et al.*, 2018; Smith *et al.*, 2013; Yang and Wu, 2016). While the necessity to use the word "social" is another expression of dichotomous thinking, the existence of internal tensions is partially a symptom of deeper cognitive problems occasioned by the for-profit/nonprofit dichotomy.

This demonstrates a need to expand the framework of understanding of organizational and institutional forms, and that narrow approaches used until now rely on assumptions that have to be redefined. While definitions based on legal frameworks remain limited to making laws and shaping policies, referring to these organizations as hybrids are helpful as this focuses on their operational novelty and avoids misinterpretations that may eventually emerge when referring to them as social enterprises.

The undeniable appearance of new forms of organizations that cannot be classified suggests that the purpose of organizations is not uninominal, but rather a mix of multiple goals that could also include social, economic, and environmental objectives. Even if under certain circumstances, the reconciliation of all these objectives within the context of a unitary organization and a clear management strategy proves to be difficult and causes extreme tension, the existence of this new type of organization represents an opportunity to question the lack of concrete formal juridical structures or institutional forms adapted to the needs of contemporary times, and perhaps more important, their existence compels us to expand our cognitive framework and understanding of organizations.

## **METAPROFIT: OVERCOMING THE FOR-PROFIT/NONPROFIT DICHOTOMY**

The analysis of the for-profit/nonprofit dichotomy and the alternative approaches developed to describe organizations that defy this dichotomy to demonstrate the need to rethink how organizational nature and management is conceived. One of the major problems behind the current categories used to understand organizational diversity is the difficulty in breaking away from the shackles of old paradigms. We believe that to reach an original understanding of new organizational realities, we also

need to think "outside the box," and propose the notion of metaprofit as a way to overcome the dichotomy in question.

The etymological origin of the neologism metaprofit is based on the polysemy of the Greek prefix meta (μετά) and in particular, two of its meanings, a causal one and an instrumental one: Meta (μετά) on the one side has a causal meaning and refers to "something beyond" or to a "cause of major relevance." In the case of the latter, metaprofit refers to the existence of a cause of major relevance situated beyond the profit-seeking goal of organizations. On the other side, it has an instrumental meaning, because it refers to an indispensable medium to reach those causes of major relevance. The notion of metaprofit considers profit (i.e., the creation of financial revenue) as an indispensable means to reach ulterior ends. In this sense, metaprofit makes it clear that "using profit" other ends of major relevance are pursued. It is beyond the discussion about the production or distribution of profit.

The complete meaning of metaprofit refers to those causes that organizations pursue beyond profit, but at the same time, do so by making use of profit. This notion overcomes the for-profit/nonprofit dichotomy by refraining from using a mix of two different species (hybrid), relying on legislative innovations (legal forms), using an appealing adjective (social), or merely focusing on the mission or the values of organizations (mission-driven, values-driven). We believe that the respective organizations can comprehend that driving forces behind their success include clarity of purpose and a set of values that are beyond profit, but at the same time, recognize that these can be achieved using profit and economic inputs.

Once the meaning of the notion of metaprofit is presented, questions regarding its content arise. The notion of metaprofit allows a broad and rich view of organizations. It becomes evident that going beyond operational, legal, and managerial limits demands a holistic and deeper understanding of organizations, which in turn permits understanding the richness of human organizational capacity.

The notion of metaprofit becomes clearer if it is analyzed according to the impact it has at different levels: individual, organizational and societal.

#### *At an individual level*

The core of the notion of metaprofit is its humanistic approach. Its emphasis on purposes beyond profit opens up possibilities that extend beyond a mere functional definition of organizations. It helps organizations to be perceived as communities of persons with deeper and humanistic purposes and helps transcend a "black box" approach towards these organizations.

The anthropological orientation of metaprofit, for example, takes advantage of the recent research on motivation. While, traditionally, extrinsic motivations have been at the core of managerial systems, the notion of metaprofit takes advantage of research that considers human motivations in more complex ways, including intrinsic motivations. Some research has been done at this level, and the relevance of

intrinsic motivations for traditional and new kinds of organizations has been increasingly evidenced (Bruni and Smerilli, 2014; Frey, 1994; Miller *et al.*, 2012; Ryan and Deci, 2000, Smerilli, 2013).

The role of intrinsic motivations for organizations is crucial. As Bruni and Smerilli (2009) documented, a core group of intrinsically motivated persons is needed to run for example a values-based organization; the survival of the organization and, in particular, its maintenance depends on a critical mass of intrinsically motivated persons inside the organization. Once the critical mass of intrinsically motivated persons diminishes, the risk of mission drift increases, and the survival of the organization in the long term is questionable.

#### *At an organizational level*

At an organizational level, the notion of metaprofit introduces a teleological shift into the relationship between profit and organization. While it still considers making profit as a relevant objective, metaprofit proposes a shift in attention from profit as the main goal, towards the purposes that organizations pursue using profit. It is important to clarify here that the metaprofit approach does not consider organizational purposes as univocal, as it is usually proposed; moreover, a realistic approach towards organizations clarifies that the main organizational purpose is the result of multiple ends, and therefore, the methodological reduction of the aim of an organization towards a profit-seeking goal can work as a hypothetical assumption, but not necessarily as a real one. As Ghoshal (2005) remarked, social sciences theories can also finally influence how we understand and consider reality, and in some cases, the for-profit/nonprofit dichotomy results in shaping a distorted understanding of the organizational realm.

The concept of metaprofit, therefore, allows a broad and composite view of the ontology of organizations as a complex relational system of goals. This dichotomy is superseded by repositioning profit within the ambit of a broad and varied system of interrelated ends. It participates in the creation of an organizational system and satisfies the needs of its stakeholders. In other words, if the goal of organizations is considered beyond profit, responsible and sustainable management could not be considered as a managerial constraint any longer, but as a part of the normal management practice.

#### *At a societal level*

At a societal level, the notion of metaprofit suggests that while legal frameworks depend on regional, national, and country legislation, the need to rethink organizational frameworks of understanding and legislating organizations is a global one. Several problems that affect our world today remain unsolved because they have a global dimension, and the traditional entities oriented to solve these problems are not sufficient. The notion of metaprofit refers to a phenomenon that transcends a reduced group of organizations; moreover, it emphasizes the need to rethink capitalism. In recent years, academia has

already embraced the discussion of viewing capitalism differently has seen "capitalism in question" (Adler, 2014). In the United States, calls for a "conscious capitalism" were made, (Mackey and Sisodia, 2013), while in Europea "civil economy" was proposed (Bruni and Zamagni, 2007).

The notion of metaprofit offers a better framework to understand the mediating role of profits in organizations; for example, in the case of family firms, empirical evidence shows that that socioemotional wealth creation and preservation explains family businesses' behavior better than the profit maximization paradigm (Berrone *et al.*, 2012; Cennamo *et al.*, 2012; Stockmans *et al.*, 2010). Similarly occurs with organizations typically considered as nonprofit, where the economic revenue is a condition sine qua non for the operation and survival (Brozek, 2009; Dart, 2004; King, 2016, Maier *et al.*, 2016) but not the main organizational purpose. In the case of hybrids, and other new organizational forms, however, much remains to be done to capture their uniqueness and to demonstrate that economic goals play an instrumental role.

In the following sections, we will present from a theoretical perspective some of the implications that the notion of metaprofit places on management and leadership inside organizations.

## **MANAGERIAL IMPLICATIONS OF METAPROFIT**

Viewing organizations through a different perspective has some implications for management. On a strategic level, the notion of metaprofit demands a holistic approach to strategy development. It can help to clarify the purpose of the organization because it frees strategic thinking from profitability as an ontological determinant. From organizational governance, metaprofit goes beyond the shareholder value maximization dogma (Collins and Porras, 1994; Stout, 2013), but at the same time, can enrich the stakeholder approach because it offers a larger view of organizational purpose, and arguably of value creation (Freeman *et al.*, 2004; Van der Linden and Freeman, 2017). Apart from considering different stakeholder interests in an instrumental manner, reflecting on metaprofit gives a sense of legitimate interactions with stakeholders.

The notion of metaprofit can help managers to better understand the drivers of different agents' behavior in organizations. It makes clear to the people within an organization that economic and financial performance is presented as a means and not as the end. Moreover, it embraces the complexity of human motivations by considering extrinsic as well as intrinsic motivations and the meta-preferences of employees. Finally, it can enable managers to decouple employees' performance from economic incentives.

Organizational complexity becomes clearer, thanks to the notion of metaprofit, which can be considered as an instrument for the alignment of the values of an organization around a central

purpose that includes multiples goals, with economic, social, and environmental content. Thus, the organization is considered for its capacity to contribute to sustainable development.

The notion of metaprofit offers a framework for understanding the necessity of more complex or adapted instruments of accountability offering information on financial and non-financial performance, including social and environmental aspects and intangible elements. It can do so by using, for example, integrated reporting, a multichannel approach, and multiple stakeholder communications. Thus, metaprofit goes beyond standard solutions for accountability and makes clear the need for tailored accountable approaches to suit every organization.

In terms of cognition, the notion of metaprofit not only expands our understanding of the nature of organizations, but it also challenges contemporary managerial praxis to understand the need for the license to operate and the risks of categorical rigidity. While the research on cognition in management relates categorical membership to success (Durand and Paoella, 2013; Negro *et al.*, 2010), the metaprofit approach permits a better understanding of the legitimacy of organizations in society because it relativizes categorical membership and introduces a new horizon of comprehension of organizational phenomena.

#### *Limitations for managerial applications from the legal point of view*

The emergence of new organizational forms creates a need to redefine legal frameworks that pay tribute to the specific characteristics of the organizations described above. A clear and appropriate legal framework specifies taxes and subsidies and thus is dependent on a respective policy. Currently, the role that for example, hybrid organizations play for fiscal policy continues to remain ambiguous. Legal limitations are clearly beyond the control of a single manager. However, laws and policies can influence the development of society and the economy only if they go hand in hand with changes in the society. Otherwise, they run the risk of becoming outdated and obstructing development, instead of promoting it. As explained in previous sections of this article, the benefit corporation movement is trying to offer a solution to this problem through in countries around the world (André, 2012; Esposito, 2013; Hiller, 2013; Rawhouser, 2015). This is a promising development; however, legislation can be better supported with a cognitive framework that allows a better understanding of the organizational realm as we propose here with the notion of metaprofit.

## CONCLUSIONS

This article has described the notion of metaprofit and its utility to better understand new forms of organizations and their management: first, the metaprofit approach suggests that the for-

profit/nonprofit dichotomy obstructs the full comprehension of managerial reality, and therefore, the notion of metaprofit plays an important cognitive role in developing managerial debate.

Further, while "profit" could be considered as a useful instrument to reach human goals, it cannot be considered as the unique end of an organization. By analyzing organizations based on the metaprofit approach, it is possible to obtain a better understanding of the strategic leverage of such organizations (strategic management, managing people, etc.). Nevertheless, a metaprofit approach emphasizes the necessity to rethink our cognitive approach towards organizations and how organizational ontology is defined.

The notion of metaprofit challenges both managerial sciences and practice, however at the moment it still is a purely theoretical concept that yet has to stand its test in real-life organizations. We thus encourage the operationalization and subsequent testing of the notion of metaprofit among representatives of different kinds of organizations to see its applicability and reception. This will provide valuable information to develop the concept further.

Likewise, we encourage further academic discussion and input from scholars from different disciplines. We consider our elaboration on the concept of metaprofit as a starting point for overcoming the outdated dichotomy between profit and nonprofit organizations. Only if we manage to develop a clear conceptual framework for the increasing number of organizations that fall somewhere in between, we will be able to provide much-needed recommendations for the practical realm, e.g., concerning tax issues, accounting principles, and managerial as well as value systems.

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## WILLINGNESS TO PAY FOR INDUSTRY 4.0 TECHNOLOGIES IN AUGMENTED MAINTENANCE

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### ABSTRACT

*Purpose* - The aim of this research is to investigate the willingness to pay (WTP) to acquire the desired technologies according to some specific features included in the app. It deals with Industry 4.0 (I4.0) technologies from a pure maintenance services' perspective.

*Design/method/approach* - Our conceptual model was tested on a sample of 100 Italian installer and maintenances' services companies and data were collected through a structured survey submitted via phone interviews.

*Findings* - The analysis shows a positive impact of some relational and technological features on the WTP. The results show a significant role played by the Augmented Reality (AR) feature.

*Research Limitations/Implications* - We believe that a limitation of this research is given by the small sample size, for which only Italian firms were interviewed. It would be extremely interesting to extend the survey to other countries including more companies.

*Practical implications* - This paper contributes both to the academic and the non-academic literature thanks to its consulting-based criteria.

*Originality* - It represents, to the best of our knowledge, the first paper on WTP for I4.0 technologies and (augmented) maintenance services, contributing in developing the current report-based knowledge with an empirical study based on an experts' survey.

*Keywords:* *Willingness to pay, Maintenance, Augmented Maintenance, Augmented Reality, app, Industry 4.0.*

### INTRODUCTION

Willingness to pay (WTP) refers to the attitude of person or a company to pay certain amounts for some products/services (Braidert *et al.*, 2006; Horowitz and McConnell, 2000; Louviere and Islam, 2008). Many studies have examined the WTP in relation to consumers' behaviour, especially with respect to low tech products such as fashion (Pucci *et al.* 2017a), food (Kehagia *et al.* 2007) and wine (Pucci *et al.*, 2017b), showing how specific product- or service-related characteristics have a higher influence on consumers' purchasing behaviour. Indeed, understanding which of those features are making

customers more inclined to pay more for products or service represents a key question for both B2B and B2C companies.

Some scholars have noticed that when customers are able to specify their preferences with respect to products, they have higher WTP and clearer purchase-related attitudes (Franke et al., 2009). This represents an important aspect for firms that could benefit from a clearer identification of those product- or service-related features that meet customers' desiderata. However, it is not easy to identify *a priori* what customers value more, especially when the product and service characteristics are still at their embryonic stage. This is the case for Industry 4.0 technologies that are increasingly adopted by firms, but whose value is not fully understood (e.g. Müller et al., 2018).

In order to provide preliminary evidence about which features influence industrial customers' WTP, this study focuses on one specific Industry 4.0 technology: Augmented Reality (AR). Given the significant economic impact in the manufacturing sector of the so-called simple combinations of "manu-services" (Sissons, 2011, Leoni, 2019), we decided to look at an innovative app developed by a service provider for post-purchase maintenance services distinguishing between relational and technological features, i.e. those characteristics that enable interactions among the customer and the supplier and those that are mainly technology4.0-related, respectively. Thereof, our research question is: *which are the app's features influencing an industrial customer's willingness to pay?*

The article is organized as follows: Section 2 discusses the theoretical framework, the conceptual model, and the research hypothesis; Section 3 outlines the empirical methodology; Sections 4 presents and discusses findings; Section 5 draws some conclusions and discusses possible limitations and further research topics.

## **THEORETICAL BACKGROUND AND CONCEPTUAL MODEL**

Scholars are increasingly discussing Industry 4.0 (I4.0) technologies such as advanced manufacturing solutions, additive manufacturing, augmented reality, simulation, horizontal/vertical integration, industrial internet, cloud, cyber-security, blockchain, big data and analytics (Fantoni *et al.*, 2017; Khaqqi *et al.*, 2018; Maslarić *et al.*, 2016; Sahay and Ranjan, 2008; Witkowski, 2017). especially looking at their influence on production processes or postproduction. For example, many researchers have dealt with maintenance services and I4.0, investigating the use of data in order to optimise and predict when and why it would be needed a maintenance service (Macchi *et al.*, 2016; Suzuki *et al.*, 2014).

However, little is known about which are the features of I4.0 technologies on industrial customers' WTP. WTP is a concept that is often used in consumer behaviour studies (Pucci et al., 2017a, 2017b), even if it has been considered in many other fields (see, among others, Bergmo and Wangberg, 2007).

Additionally, as far as we know, there is scant attention about industrial customers' WTP, especially when considering I4.0 technologies. Which are the features that industrial customers value more?

To the extent of this research, due to the high heterogeneity of I4.0 technologies, we focused on AR. More precisely we looked at augmented maintenance services (Oztemel and Gursev, 2020; Frank *et al.*, 2019; Fernández-Caramés and Fraga-Lamas, 2019; van Lopik *et al.*, 2020). We analysed an app designed by a software start-up company to help maintainers during their maintenance services thanks to several features. We distinguished between two types of features: *relational and technological features*. *Relational features* are those able to create human interactions during the maintenance service between the maintainer and the not-in-site expert. These features, similarly to what investigated by Andronikidis (2009), are based on "old" technology which can be easily found in any smartphone without the need to install special maintenance apps. *Technological features* are those strictly linked with I4.0 technologies and derive from AR, cloud, big data and analytics and blockchain, thus significantly help maintainers during their operations (Gomes *et al.*, 2017). We disentangle the value of these two features, arguing that each of them influences the industrial customers' WTP. Hence, we test the following two hypotheses:

Hp1: An industrial customer's willingness to pay for an Industry 4.0 technology is influenced by its relational features

Hp2: An industrial customer's willingness to pay for an Industry 4.0 technology is influenced by its technological features

Figure 1 graphically represents our conceptual model.

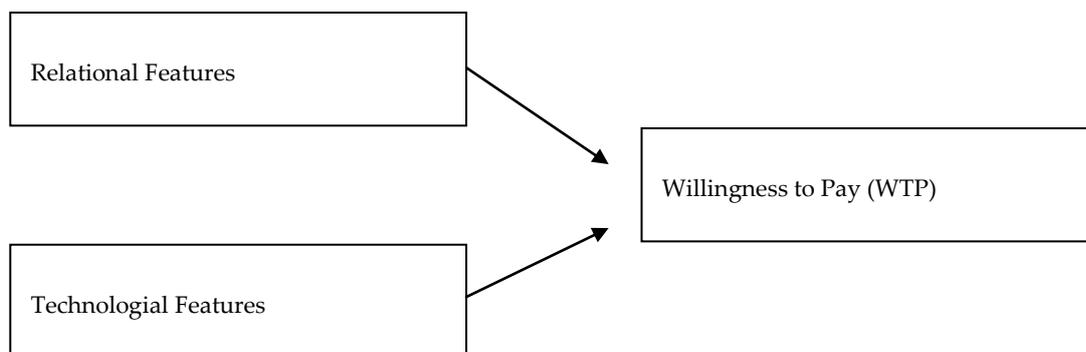


Figure 15. *Conceptual model (source: Authors)*

## METHODOLOGY

### *Data Collection*

Data collection (from February to April 2019) was performed through a structured survey on 100 Italian installer and maintenances' services SMEs. The survey was performed through direct call to the

companies, while general info (e.g. year of constitution) was gathered through secondary sources, namely the Chamber of Commerce. We also collected data about the age of the respondents, to have a well distributed panel (Table 1).

| Age                  | Numerousness | Share |
|----------------------|--------------|-------|
| Less than 30 yo      | 10           | 10%   |
| Between 31 and 45 yo | 42           | 42%   |
| Between 46 and 60 yo | 37           | 37%   |
| Older than 61        | 11           | 11%   |

Table 7. Age of interviewed (source: Authors)

### Measures

*Dependent Variable.* Willingness to Pay (WTP) comes from a direct question asked to the interviewed owners/managers/employees. The question concerned their WTP in case the proposed app would have included all the features individuated as relevant. The options went from none (i.e. I will only use the app if free, I am not WTP for such app) to high (I would pay a significant amount for using such app).

*Independent Variables.* The *Relational feature* comprises: (1) *Social network appearance*, operationalised asking firms if they considered relevant an appearance similar to instant message or other social network apps; and (2) *interaction text*, based on the importance of sending and receiving text messages. The *Technological feature* comprises: (1) *expert contact*, operationalised asking firms if they wanted the app to implement a function allowing them to get in touch with an expert from remote; (2) *previous operations*, hence the value assigned to the possibility to use big data and cloud to access information from similar interventions already made; (3) *augmented reality*, operationalised asking firms if they wanted the app to have an AR option to visualise directly in the smartphone screen all the information needed pinned to each part of the machine/instrument for which the maintenance is needed, simply using the smartphone camera.

Furthermore, we control for the size of the company using its natural logarithm.

## FINDINGS

To investigate the WTP for technology adoption of an augmented maintenance service, we employed a linear regression analysis. Table 2 show the results.

|   | WTP      |
|---|----------|
| Social network appearance   | -0.0510  |
|   | (0.118)  |
| Interaction text  | 0.238*   |
|   | (0.139)  |
| Expert contact  | 0.0713   |
|   | (0.146)  |
| Previous operations   | 0.326**  |
|   | (0.150)  |
| Augmented reality   | 0.373*** |
|   | (0.133)  |
| size(ln)  | -0.136   |
|   | (0.120)  |
| Constant  | -1.365** |
|   | (0.566)  |
| Observations  | 99       |
| R-squared   | 0.355    |
| Note: Robust standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1 |          |

Table 8. *Linear Regression Results*

For what concerns our hypotheses, the results show a positive and significant effect of Interaction text, Previous operations and Augmented reality on WTP for implementing augmented maintenance. Hence, our hypotheses are partially supported.

## DISCUSSION AND CONCLUSIONS

This research points out the WTP for implementing an augmented maintenance service through the use of a specific app combining both relational and technological features. Among the relational features, only the possibility to send and receive text messages augment the willingness to pay for obtaining it. If we consider them in term of user-friendliness, this result is in line with other studies about WTP and technologies (Bergmo and Wangberg, 2007). Our results are consistent with the findings pointed out by Sadik-Rozsnyai and Bertrandias (2019), but also Carpenter et al. (1994), Walters and Lancaster (1999), and Zeithaml (1988) who underline that the perceived value, and therefore the WTP, is increased by new attributes. On the other hand, two technological features are significant and play a relevant role in augmenting the WTP of installer and maintenance services' companies. Smart data, i.e. information coming from previous operations, are considered relevant and therefore they justify a higher WTP. As pointed out also in Gomes *et al.* (2017), AR is the I4.0 technology considered most relevant when dealing with the WTP of potential customers.

## IMPLICATIONS AND LIMITATIONS

This study represents one of the first papers on the industrial customers' WTP for I4.0 technologies. This paper contributes both to academics and practitioners providing a first empirical example on WTP for I4.0 technologies – in particular augmented maintenance services. We think that it also contributes in developing the current report-based knowledge with an empirical study based on an experts' survey. Nonetheless, it would be extremely fruitful to extend the survey in terms of both surveyed industrial customers (at both national and international levels) and even more nuanced relational and technological features.

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## THE WILL TO ACCOUNTABILITY IN THE VOLKSWAGEN DIESELGATE

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### ABSTRACT

Upon dieselgate eruption, Volkswagen underwent severe consequences in terms of stakeholders' trust. Extant literature underlines media reactions to the emissions scandal, however it neglects to consider Volkswagen's disclosure behaviour in its aftermath. This study fills this gap by investigating how Volkswagen discharged accountability in the first Letter to Shareholders (LS) issued after the fact. It relies on an accountability frame and adopts critical discourse analysis as a methodology to identify Volkswagen's discourses around the "diesel scandal". The findings show that Volkswagen chose the LS as a preferential document to discharge accountability through discourses of apologies, trust and hope, which convey an ongoing corporate effort to overcome the diesel scandal. Further, the analysis demonstrates that the German automaker represents the scandal by employing several expressions and different verb tenses, by evoking internal and external actors and by referring to both local and global spaces. It also highlights the use of metaphors and value assumptions to tie discourses on the diesel scandal and on future corporate initiatives together. This study contributes to extant accounting literature by offering new insights on the role of the LS as a locus for accountability. It also extends the emerging literature on the Volkswagen's diesel scandal by focusing on its disclosure behaviour. Finally, the study produces two major implications for research and practice: it reveals the potential of critical discourse analysis to explore issues under an accountability frame and advises share/stakeholders on the potential use of the LS in the aftermath of scandals entailing sustainability disasters.

*Keywords: Accountability, Letter to shareholders, Sustainability, Case study, Volkswagen, Critical discourse analysis, Disaster.*

### INTRODUCTION

In September 2015 Volkswagen became protagonist of the well-known dieselgate, a scandal that entailed various dimensions of sustainability and undermined its credibility to its stakeholders. This study investigates the disclosure behaviour adopted by Volkswagen shortly after the dieselgate, under the expectation that the company leveraged on voluntary reporting to provide information that goes

beyond traditional financial disclosures. Among the forms of voluntary reporting, the Letter to Shareholders (LS) is '*arguably the most powerful and influential*' (Mäkelä and Laine, 2011, 218). It may especially repair the relationship with share/stakeholders and fulfil their informational needs. These purposes are intrinsic to the idea of accountability proposed by Gray et al. (1996, 38), which refers to the sense of duty to provide an explanation (*account*) of those actions that fall under his/her responsibility. This idea implies a relationship between who gives an account and who demands an account of corporate conduct. In virtue of such relationship, the accountor is called to discharge accountability to the accountee by explaining and taking responsibility of his/her conduct.

Following these premises, this study focuses on the first LS issued by Volkswagen in the aftermath of the scandal (i.e. in the 2015 annual report), when the need to recover the share/stakeholders' trust was particularly urgent (Sims, 2009). To achieve its purpose, the study adopts critical discourse analysis (Fairclough, 2003) as a methodology to examine how discourses around the diesel scandal are conveyed to the corporate audience and how this sustainability disaster is represented. The analysis demonstrates that Volkswagen – on behalf of its Chief Executive Officer (CEO) – employs the LS as an official, preferential document to discharge accountability. It shows that the Volkswagen's will to accountability entails discourses on apologies, trust and hope, which underline the ongoing Volkswagen's effort to overcome the sustainability scandal and reassure its share/stakeholders, by elucidating initiatives undertaken and future sustainability challenges. This study contributes to prior literature in different ways. First, it contributes to extant literature on corporate accountability by elucidating corporate disclosure behaviour in case of scandals entailing sustainability disasters (Chatzoglou et al., 2017; Florio and Sproviero, 2017), and specifically highlighting those discourses through which companies pursue accountability in case of corporate scandals (Amernic and Craig, 2000; 2013). Second, it demonstrates the potential of the critical discourse analysis as a methodology to explore discourses according to an accountability frame (Higgins and Coffey, 2016; Busco et al., 2018). Finally, it provides new insights on the role of the LS as a locus for accountability, as opposed to a locus for impression management (Merkl-Davies and Koller, 2012).

## **ACCOUNTABILITY AND THE LETTER TO SHAREHOLDERS**

Accountability is a chameleonic concept that changes with the context and is subjectively constructed. Generally defined as giving or demanding the reasons for conduct, accountability implies a relationship between two parties, i.e. the accountor and the accountee. Leading scholars have further conceptualised accountability by focusing on the accountor's or the accountee's viewpoint. Focused on the accountor's viewpoint, Gray et al. (1996, 38) define accountability as '*the duty to provide an account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible*'.

Similarly, Boland and Schultze (1996, 62) maintain that accountability entails *'the capacity and willingness to give explanations for conduct, stating how one has discharged one's responsibilities'*. As emerged in the definitions above, accountability requires the accountant to explain and take responsibility for his/her actions by disclosing information to the accountee; in parallel, it also recognizes to the accountee the right to obtain information by the accountant (Roberts and Scapens, 1985; Roberts, 1991; Boland and Schultze, 1996; Gray et al., 1996). Roberts and Scapens (1985) and Roberts (1991) suggest that obligations entailed in being accountable encompass two forms of accountability that are in ongoing tension and interdependence within corporate contexts: hierarchical accountability, which results into individualising effects produced by formal relationships, and socialising accountability, which creates informal relationships that allow the individual to overcome his/her isolated character. Boland and Schultze (1996) argue that hierarchical and socialising forms of accountability stem from *'the interplay of two different modes of cognition'* (Boland and Schultze, 1996, 65) proposed by Bruner (1986; 1990): the calculative mode and the narrative mode. While the former represents events through abstract, theoretical concepts that allow the individual engaging in calculation, the latter represents events through a story-telling that involves individuals with their motivations and ideas.

Even though Boland and Schultze (1996, 62) dichotomise the faces of accountability according to these modes of cognition, they suggest that *'[p]roducing accountability requires both narration and calculation'*. Accordingly, accountability entails both a recounting of events in a story form (i.e. the narrative face of accountability) and a calculation of net balances of (also moral) obligations in a transaction form (i.e. the calculative face of accountability). These two faces are interrelated, intertwined and inseparable in both informal and formal corporate relationships and are necessarily used together in discharging accountability. Similarly, Gray et al. (1996, 32) maintain that the discharge of accountability covers the disclosure of information about financial as well as nonfinancial aspects. They also indicate the accountability framework as *'the most useful one for analysing accounting information transmission in general'*.

The LS provides *'an overview of the company and its performance rather than pure financial data'* (Bartlett and Chandler, 1997, 254). Previous literature underlines the LS is the most read part of the annual report to which it is included or attached; it may include a range of issues that are not disclosed in other parts of the report (or in other reports); it may reveal about the company's priorities and how it wishes to be seen, especially given that it is made available directly on the company's website (Epstein and Pava, 1993; Bartlett and Chandler, 1997; Fanelli and Grasselli, 2005). Further, the LS allows directors/executives addressing a message to share/stakeholders that adds information to sustain their decisions (Clatworthy and Jones, 2003). In a longitudinal study, Mäkelä and Laine (2011) find significant differences between the CEO's letters issued in annual reports and those issued in

sustainability reports. Moreover, while the economic discourse of growth and profitability is prominent in CEO's letters in annual reports, the "well-being" discourse supports the LS opening sustainability reports.

Prior research extensively analyses the LS from an impression management perspective. For instance, Clatworthy and Jones (2003, 183) stress how '*[f]or declining performers, these narratives downplay bad news*'. Moreover, Merkl-Davies and Koller (2012, 179) argue that impression management '*constitutes an integral feature of corporate narrative reporting*' and is aimed at persuading corporate audiences under controversial circumstances, e.g. corporate scandals. Few studies have approached the LS from *the other side of the coin* (Frink and Ferris, 1998), i.e. an accountability perspective. More precisely, Amernic and Craig (2000; 2013) are pioneers in exploring the letter as an accountability, narrative and discourse document. Their analyses investigate discourses in the Walt Disney's 1940 letter to stockholders (Amernic and Craig, 2000), when "Uncle Walt" needed to issue shares because of the company's debt. The authors also examine the News Corporation's 2010 letter (Amernic and Craig, 2013, 388), in which the CEO defines the "killer app" (i.e. the phone-hacking technology) as an essential part of the company's '*armoury in the war to achieve circulation sales and profit in a highly competitive business environment*'. Both papers show how the CEO's letters help appreciate corporate values and (un)ethical behaviours, by using metaphors and rhetoric.

This study rests on an accountability perspective to investigate the Volkswagen's LS. This document is regarded as a suitable locus for an accountable explanation of relevant events occurred during the financial year. From a theoretical stance, the study relies on Gray et al. (1996) definition of accountability, combined with the arguments by Boland and Schultze (1996) to clarify how the Volkswagen's LS reveals a particular explanation of the diesel scandal in its aftermath. In detail, Gray et al. (1996) definition of accountability elucidates how Volkswagen (the accountant, in the person of its CEO) establishes a one-way communication with its share/stakeholders (the accountees) by means of the 2015 LS and how this document supports the company in discharging its duty to account for the sustainability disaster. Moreover, the arguments raised by Boland and Schultze (1996) help highlight on which faces of accountability Volkswagen mainly leverages when it "tells about" the diesel scandal.

## **VOLKSWAGEN DIESELGATE**

This study refers to the well-known Volkswagen's dieselgate, a scandal erupted in September 2015 when Volkswagen, one of the world's largest car manufacturers, was blamed by the US Environmental Protection Agency (EPA) to violate the Clean Air Act (Neate, 2015; Schiermeier, 2015). In the days following the scandal, Volkswagen's stock crashed by more than 20% on the Frankfurt Stock Exchange and the Volkswagen's CEO, Mr. Martin Winterkorn, resigned. A new CEO was appointed, Mr.

Matthias Müller, who immediately launched an internal inquiry. The Volkswagen dieselgate has drawn the attention of scholars in several fields of research, e.g. management, corporate governance, and communication strategies. Scholars particularly focused on identifying the reasons behind the scandal and the reactions of social media to the latter. Extant literature particularly points the finger at corporate governance issues as the root causes behind the diesel scandal (Elson et al., 2015; Crête, 2016; Li et al., 2018). At the time of the scandal, Volkswagen had a two-tier board structure with the supervisory board equally split between shareholders and employee representatives. This pushed into *'an alliance between the shareholder-controller, management, and labor'* (Elson et al., 2015, 42), which led to shortcomings in the monitoring and control mechanisms, and eventually *'in the compliance system established by the company to ensure that legal requirements were respected'* (Crête, 2016, 26). Moreover, generous bonus schemes granted by Volkswagen to senior executives were identified as a main determinant of the wrongdoing concealment, given their structure as individual bonus, company performance bonus, and rewards for team performance (Li et al., 2018).

Moving the attention to media reactions to the Volkswagen's diesel issue, Valentini and Kruckeberg (2018, 529) observe that Volkswagen was not fulfilling *'its promise to be a socially responsible and sustainable'*. They find that, according to international newspapers, Volkswagen's behaviour affected major stakeholders, such as customers, shareholders and other investors, US EPA, European and German institutions, and the *'society-at-large'*. Focusing the analysis on German newspapers in the week immediately after the scandal eruption, Clemente and Gabbioneta (2017) show that the media identified the employment of a special software to manipulate the evaluation of pollutant emissions as the nature of the scandal, while referring also to environmental and health implications. Newspapers focus on both reputational and financial costs resulted from the scandal, the former referring to image deterioration and loss of stakeholders' trust and the latter referring to monetary sanctions, costs of product recalls, the fall in stock prices, the interruption of US sales, and the issuance of a profit warning. Newspapers identified also potential spill overs on the automotive industry or the overall German economy, especially exports. Finally, newspapers discussed about the means through which Volkswagen could recover its reputation, by suggesting the step down and/or the removal of the CEO and involved executives, as well as a cooperation with authorities (Clemente and Gabbioneta, 2017, 295). In the wake of extant literature, this study investigates whether and how, after the outbreak of the scandal, Volkswagen relied on the LS as a voluntary document to discharge the duty of accountability to share/stakeholders.

## RESEARCH DESIGN

### *Case-study and documents analysed*

To meet the main objective of this study, official reports published with reference to year 2015 were searched: only the annual report resulted available on the Volkswagen's website. While reading through the 2015 annual report, it became evident that the locus chosen by Volkswagen to deal with the diesel issue was the LS issued by the newly appointed CEO, Mr. Matthias Müller. Lacking a timely sustainability report, the choice of the LS is not surprising, provided that it is the most read part of the annual report and may affect investors' decision making by helping predict future performance (Epstein and Pava, 1993; Bartlett and Chandler, 1997; Clatworthy and Jones, 2003). On the preparer's side (i.e. Volkswagen), the LS represents not only the sole document dealing with this sustainability issue, but also the first chance for the CEO to address an official, written speech to the company's share/stakeholders. Therefore, this document is particularly pertinent for performing a critical discourse analysis aimed at revealing how Volkswagen discharges accountability at the time of the diesel scandal.

### *Critical discourse analysis*

The study applies critical discourse analysis (CDA) as proposed by Fairclough (2003). According to Fairclough (2003), CDA is not merely an analysis of the text, even though textual analysis is an essential part of it. Under such thought, Fairclough (2003, 3) conceives texts as '*transcripts of (spoken) conversations*' (i.e. language) that entail discourses, which in turn are intended as '*signals [...] of language in use*'.

Accounting scholars have drawn on Fairclough (2003)'s approach to CDA to examine corporate reporting narratives (e.g. Merkl-Davies and Koller, 2012; Higgins and Coffey, 2016) and inspect the constitutive role of discourses in an organisational realm (Busco et al., 2018).

To the purpose of this study, the analytical scheme originally proposed by Fairclough (2003) has been adapted to explore discourses around the diesel issue and how such event is re-presented in the LS. The analysis performed is summarized in Table 1.

CDA distinguishes discourses into two analytical categories: discourses and representation of event. Discourses deal with themes addressed, features of discourses (linguistic elements like metaphors, collocations, and assumptions), and interdiscursivity. The latter concerns the way in which discourses are drawn upon and articulated together in texts as it stems from the import of elements of some discourses from other (heterogeneous) discourses. In turn, the representation of the event deals with ways of re-contextualising in a written form: the event itself (i.e. generalising or concretizing the event

and including or excluding processes, relations and actions undertaken), actors involved in such event, as well as spatial and temporal circumstances surrounding it.

| Analytical categories   | Elements under analysis   |
|-------------------------|---|
| Discourses              | Themes: Main topics addressed in the document and on which discourses are developed.  |
|                         | Features of discourses: Expressions that characterise the account of the dieselgate, like metaphors (words that extend a part of the world to another - lexical metaphor - or represent processes as things - grammatical metaphor), collocations (how words are most frequently preceded/followed by other words), and/or assumptions (presuppositions about what exists - existential assumptions -, what is or can be or will be the case - propositional assumptions -, and what is good or desirable - value assumptions). |
|                         | Interdiscursivity: How different discourses are entangled in the text.  |
| Representation of event | Representation of the event itself: The generalization or concreteness through which the dieselgate is conveyed, and the inclusion or exclusion of processes, relations, and actions undertaken.  |
|                         | Representation of actors: The inclusion or exclusion of subjects who participate to the dieselgate actively or passively, personally or impersonally.   |
|                         | Representation of space and time: Circumstances that help re-contextualize the diesel issue and, in turn, incorporate the event at the time of writing.   |

Table 1. *Analytical scheme applied for CDA*

## FINDINGS

### *Discourses*

Titled '*Letter to our Shareholders*', the Volkswagen's letter is structured into two pages with eight paragraphs, four for each page. This structure helps Volkswagen deal with six different topics pertaining to *corporate scandal*, *responsibilities*, *actions & change*, *corporate qualities & values*, *financial performance*, and *future & strategy*. *Corporate scandal* is the only topic treated in every paragraph of the letter; it is intertwined with other topics throughout the document, thus allowing to both address the diesel issue from different perspectives and texture heterogeneous discourses within the LS.

In the first paragraph, the letter mentions the *corporate scandal*, assuming *responsibilities* and recalling *corporate qualities & values*. More specifically, it links the discourse on the diesel scandal to discourses on the company's history and apologies for the occurrence. The second paragraph presents high interdiscursivity: it mixes discourses around the sustainability disaster by adding information about *actions & change* undertaken by Volkswagen to overcome the scandal and avoid similar situations in the future. The third and the fourth paragraphs are focused on how the *corporate scandal* has affected the Volkswagen's *financial performance*. In this vein, the diesel scandal is represented with reference to its financial impact on the 2015 corporate results as well as on shareholders' remuneration. Turning the page, the letter leaves financial discourses to project *corporate scandal* and *corporate qualities & values* towards the future. The fifth paragraph particularly introduces the topic of *future & strategy*, which is

then widely developed in the sixth and seventh paragraphs. More specifically, the fifth paragraph entangles the discourse on *corporate scandal* with a few attributes on which Volkswagen intends to leverage to resolve the diesel issue and continue its activities. The following two paragraphs relate the topics of *corporate scandal*, *future & strategy*, and *corporate qualities & values* to the one of *actions & change*. These paragraphs tell about the initiatives already promoted to overcome the diesel issue, by intertwining them with information on *future & strategy*. The mix of discourses is similar with the one of the second paragraph, with only one difference: the discourse related to the awareness about the difficult situation and commitment aimed at clarifying how the scandal happened (*responsibilities*) is replaced with the discourse developed on prospects and long-term programs on which Volkswagen builds its strategy (*future & strategy*). The last paragraph addresses all the topics recurring in the letter, with the only exception of *financial performance*. The Volkswagen's letter concludes by condensing and retracing the discourses encompassing the document with the aim to call for shareholders' support.

Metaphors and value assumptions are the two features of discourse included in the Volkswagen's LS, while there are no evident collocations patterns nor existential and propositional assumptions. A metaphorical representation of the company is proposed throughout the document and helps transmit that the company struggles to return on *the right track*, rebuild the broken trust and seize the opportunities (*opened doors*) provided by this scandal. Further, grammatical metaphors appear in the specific form of nominalization, which emerges in objectifying processes and attributes. Accordingly, verbs like "to trust", "to cooperate", "to achieve", "to dedicate", and "to found" are turned into nouns. Finally, value assumptions are features of discourses employed in the Volkswagen's LS to create links between the diesel scandal and the future course of action. These assumptions indicate some desirable expectations from a successful resolution of the scandal and a responsive control of its consequences.

#### *Representation of event*

The Volkswagen's letter refers to the *corporate scandal* through several expressions. In the first paragraph, it is indicated both directly as *irregularities relating to diesel engines* and indirectly by using the expression *in more auspicious circumstances*, implicitly referring to circumstances that - due to the scandal - were lacking at the time of writing. The diesel issue is further denoted as *probably the greatest challenge* in the Volkswagen's history. In the second paragraph, it is pointed out as *what happened*, *past mistakes*, and *something like this*. It is also indicated as *this crisis*, which however remains undefined in nature. *The present crisis* introduces the part of the LS dealing with the company's *financial performance* (third and fourth paragraphs). Consistently with the technical terms employed to report financial results and figures, the diesel scandal is here referred as *negative special items* and *high exceptional charges*. In the third paragraph, the *corporate scandal* is further represented as *difficult phase* and *diesel issue*. In the remainder of the letter, it is denoted as *this crisis* (again) and *the difficult situation*. In the last

line of the document, the diesel issue is represented underlining *the present pressures* it puts on the company.

Actors included in the representation of the diesel scandal are depicted through nouns and pronouns. Through nouns, the letter evokes group categories of actors that are involved in, and affected by, the event. In the first part of the document, these group categories relate *the (Volkswagen) Group* (also represented as *the Company*) to governance and management actors, specifically *shareholders, Chairman of the Board of Management, the Board of Management, the Supervisory Board* and *the Annual General Meeting*. Volkswagen is also described in relation with two external subjects, i.e. *customers* and *authorities*. The second part of the letter represents categories of actors belonging to stakeholders' groups with which Volkswagen interacts and by which it draws human and relational resources. In particular, the document mentions *customers, shareholders, team, employees, partners, and society*. The letter includes both personal and possessive pronouns. First, pronouns are used to underline a personal CEO's commitment (*I, me*) and a shared (*we, us, our(s)*) engagement of all Volkswagen's members in solving the diesel issue. Further, the first plural person reflexive pronoun *ourselves* recurs in two parts of the LS to emphasise the difficult situation the company is called to face and overcome, whereas second plural pronouns are employed to directly refer to the owners of Volkswagen's shares (*you*) and emphasise that the diesel scandal increases the company's needs of their patience and support (*yours*). Finally, the indefinite pronoun *everyone* is used to stress that every single member at Volkswagen works with the scope to build again the corporate reputation.

The LS represents space through two extremes that oppose a local place (*the Annual General Meeting of Volkswagen Aktiengesellschaft*) to a global place (*Volkswagen's global presence, all over the world, automotive world*). It also offers examples of space-time relation that emerge in the representations of duration and distance in time. Referring to the past, the LS includes expressions such as *in the history, for the last fiscal year, in the previous year, over the past years, in recent weeks*, while referring to the future it mentions *over the next ten years, a year of transition, a year when we lay the foundations for the future, into the future*. Space-time relation is also introduced through movements among different verb tenses and use of adverbs (*rightly, usually*). More specifically, the representation of time draws on several tenses throughout the LS. Present tense is employed in both the non-progressive form and the progressive form. The latter is widely used with multiple purposes: to underline the corporate commitment in overcoming the diesel scandal (e.g. *we are doing everything, everyone at Volkswagen is working*); to highlight the corporate value drivers (*our portfolio of twelve strong brands, unique in our industry, is carrying us even through this difficult phase*); to portray the business landscape (*automotive world that is facing epoch-making change*); and to describe the actions undertaken (*we are realigning our structures, we are also renewing our targets, we are evolving the strategy, we are now putting in place, we are working on that*). The present continuous tense also

closes the LS, with the CEO's expression *I am asking*. In its turn, future tense marks those portions of the document referred to the dividend proposal (*the Board of Management and the Supervisory Board will propose a dividend of*), the 10-year strategic plan (*[t]he presentation of our Strategy 2025 mid-year will be an important milestone*), the expectation for the current year (*2016 will clearly be a year of transition*), and the resolution in successfully overcome the diesel issue (*we will be able to say: no matter how grave the crisis was, it also opened doors for us, we will succeed in making Volkswagen a better company*). Conditional sentences are placed only in the first paragraph to introduce the CEO's apologies for the wrongdoing (*I would have preferred, I would like to apologize*) and in the part presenting the financial performance (*the operating result would have slightly exceeded, we would once again have been able to talk about a successful year overall*). Finally, the representation of time draws also on the modal verbs "must" and "can". "Must" is used to communicate that Volkswagen hearty wants to learn from the diesel scandal and pay its debt to the society (*we must above all learn from past mistakes and draw the right consequences*). "Must" also points out how the company plans to address the big future issues (*the Volkswagen Group must become faster and more efficient, more flexible and courageous, more technically progressive and sustainable in all relevant aspects*). At the end of the LS, it is used to state the central importance of regaining trust (*trust must be earned*). Finally, the modal verb "can" helps convey the corporate commitment in removing everything is related to the diesel scandal (*everything we can, something like this can never happen*), as well as the possibility to leverage on distinctive resources for continuing operations (*qualities on which we can also build for the future*).

## DISCUSSION AND CONCLUSIONS

The findings show that, in the aftermath of the sustainability disaster, Volkswagen chose the LS as the locus for discharging its duty of accountability towards share/stakeholders (Gray et al., 1996). Written by the CEO on behalf of the company (i.e. the accountant), the LS contains an official, preferential message on the sustainability issue resulting in the diesel scandal. While the LS is addressed to shareholders, it also delivers a subtler message to stakeholders (i.e. the accountees). The findings reveal an urgency to tell about the diesel scandal, which is mentioned since the third line of the LS. This urgency highlights a sense of responsibility hanging over the company to account for its legal and ethical negligence (Gray et al., 1996; Dillard and Vinnari, 2019).

In the Volkswagen's 2015 LS, accountability emerges in both narrative and calculative faces and draws on different discourses (Boland and Schultze, 1996). More specifically, narrative accountability stems from discourses surrounding initiatives undertaken, stakeholders' involvement and future sustainability challenges, which construct a story-telling on how the company was acting to solve the sustainability disaster (Higgins and Coffey, 2016). In turn, calculative accountability arises from

discourses surrounding financial performance and shareholders' remuneration, which provide an evaluation of the impacts of the diesel scandal on the company's business. While discourses surrounding initiatives undertaken, stakeholders' involvement and future sustainability challenges are sparse throughout the letter, discourses surrounding financial performance and shareholders' remuneration are concentrated in a specific part of the LS. Furthermore, both the narrative and calculative faces of accountability emerge in discourses of apologies, trust and hope through which Volkswagen conveys an ongoing effort to overcome the sustainability disaster. In providing an account of its disaster, Volkswagen relies on financial and nonfinancial information to offer an all-encompassing representation of the scandal. It refers to past, present and future situations, as well as to the private location of the annual shareholders meeting and the worldwide presence of the corporate business.

The findings show the pervasiveness of the discourse around the scandal, which trespasses all the LS and is related to several internal (e.g. the Group, the Board of Management, employees) and external (e.g. responsible authorities, customers, partners) actors. The evidence further reveals that metaphors and value assumptions make the representation of the sustainability disaster general and abstract, however without obscuring the Volkswagen's responsibilities for the diesel scandal.

The study highlights the Volkswagen's will to accountability for the sustainability disaster. It confirms that a financial discourse is present in the LS that opens the annual report (Mäkelä and Laine, 2011), yet it also underlines that this discourse is not prominent in case of a letter issued in the aftermath of a sustainability disaster. More precisely, the financial discourse is restricted to a small part of the letter, while discourses on apologies, commitment, and prospects recur in the remainder part of the letter. In line with Amernic and Craig (2000; 2013), the analysis reveals that metaphors and value assumptions support an accountable representation of the sustainability disaster and the (future) corporate initiatives, by proposing a fictional representation of the event.

Furthermore, the analysis reveals the Volkswagen's will to communicate to the major stakeholders affected by the scandal. It particularly adds to Valentini and Kruckeberg (2018) by demonstrating that the Volkswagen's LS and news media have common recipients, who may rely on both sources to fulfil their informational demands. The Volkswagen's 2015 LS also emphasises how a document issued in the aftermath of a sustainability disaster helps in reassuring share/stakeholders as well as in recovering their trust (Sims, 2009).

This analysis offers four main contributions to extant literature. It extends prior literature on corporate accountability, by shedding light on discourses through which companies pursue accountability in time of sustainability disasters (Amernic and Craig, 2000; 2013(Florio and Sproviero, 2017)). It also adds evidences to the potential of critical discourse analysis as an approach to inspect corporate reporting

document under an accountability frame (Higgins and Coffey, 2016; Busco et al., 2018). Finally, it offers new insights on the role the LS plays in discharging accountability, instead of being a locus for impression management (Merkl-Davies and Koller, 2012). With its findings, the research may produce practical implications, in that it advises corporate audience on the role the LS may have as an official, public, written document in which companies explain and take responsibility of scandals entailing sustainability disaster.

To conclude, this study is not free from limitations, which pave the way to further research. It focuses on the LS referred to year 2015, thus it neglects the discourses contained in LSs issued before and after the sustainability disaster, or in other forms of corporate disclosure. Future research may inspect whether and how Volkswagen's discourses change in the letters preceding and following the diesel scandal, or in other voluntary documents, to understand the company's disclosure behaviour according to the sustainability achievements/shortcomings/failures. The study limits the analysis to a Volkswagen's written document. Future studies may enrich the investigation with interviews to corporate members and triangulate the results. The analysis restricts on the Volkswagen's case, even though other car manufactures (e.g. Renault-Nissan, and Fiat Chrysler Automobiles) faced sustainability disasters. Further research may enlarge the scope of research to a comparative analysis of discourses formulated by other companies in the LSs issued immediately after the scandal.

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## A SATISFACTION-BASED TYPOLOGY OF VISITORS TO AN INTERNATIONAL SHORT FILM FESTIVAL

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### ABSTRACT

Tourism industry encompasses the organization of art festivals which can act as drivers of local development and bring social benefits which improve the quality of life of local communities. However, efficient festival management requires the understanding of visitors' satisfaction with the experience they gained while attending a festival or event. The case study presented in this paper is the international short film festival of Drama, a rural city in northern Greece, which attracts many visitors every year. The aim of this paper is to group visitors into typologies and to identify important correlations between their satisfaction and overall assessment with their demographic and other characteristics. Using categorical principal components analysis, categorical regression and cluster analysis, significant insights were gained. In particular, although the festival has gained its position as a brand name in the local market, the provided tourism services should be improved to meet visitors' expectations. Overall, it seems that the Regional Unit of Drama has managed to convince the visitors that it is a value for money destination, while strategic planning should remain a priority in the development plans of the broader area.

*Keywords: Drama short film festival, local development, visitors' satisfaction, value for money, cultural tourism, categorical principal components analysis, categorical regression, cluster analysis.*

### INTRODUCTION

Tourism has the ability to transform the local social and economic structure (Loukissas, 1982) and, in rural remote areas, it can benefit the local economy through the creation of new jobs while offsetting job losses due to the decline of sectors, such as agriculture. The impact of tourism on the economic, social and cultural development of rural areas has been widely acknowledged. In economic terms, tourism can provide the inflow of foreign exchange and, at the same time, consists a key driver of local economy through the jobs it creates and the improvement in local infrastructures and services (Andereck and Nyaupane, 2011; Guaita Martinez et al., 2019). As Varvaresos and Sotiriadis (2002)

observed, tourism is able to offer jobs to that part of the population that faces the greatest difficulty finding work such as young unskilled individuals, long-term unemployed people and women. The same authors also noticed that unemployed individuals who find work in the tourism industry are often trained in occupations which are totally irrelevant to tourism. Therefore, tourism can absorb a significant proportion of unemployed individuals since it is not a highly demanding sector and does not require specialized technical knowledge. As for culture, tourism brings together people of different cultures and origins (Mowforth and Munt, 2003; Almeida et al., 2016).

Festivals and events consist part of tourism and, in the recent decades, they have flourished while the research interest in understanding their significance has increased. The evolution of festivals has confirmed their impact on rural development and local economic development, while their marketing functionality has also been acknowledged in social and cultural proliferation (Pavluković et al., 2019). Therefore, it is of great importance to develop visitors' typology as part of an integrated effort to increase the success of cultural festivals. In addition, it should be noted that tourism industry and specifically festivals are now oriented towards the derived social benefits, which create not only strong ties with the local community but also form a special identity for the destination (Mair and Duffy, 2015).

To that end, Skoultzos et al., (2020) placed particular emphasis on the festivals' value using the argument that the small communities which consist of the festival assemblers provide the sense of community (SOC). In specific, the SOC provides the members of the festival community with a sense of belonging, while it creates positive feelings of safety and social cohesiveness.

There is robust reasoning supporting the development of festivals in rural development planning. Most importantly, festivals offer an exceptional opportunity for promoting the particular character of local culture and history. Indicatively, Yozukmaz et al. (2020) argued that art, crafts, performances, recreation and entertainment are the vehicles for attracting visitors' attention. Additionally, festivals can serve as brand name promotion tools because they can give added value to destinations and, at the same time, they may promote alternative forms of tourism. It might, nonetheless, be questioned why the potential of festivals remains untapped. Interestingly, Georgoula and Terkenli (2017) stressed the need to investigate case studies in rural medium-sized cities which host international festivals in order to make progress in tourism planning. In specific, if decision makers attain a deeper knowledge about visitors' views, they could organize a more successful international festival. This means that policy makers will be able to utilize and promote the existing cultural assets and traditions. In addition, the development of tourism could promote the sustainable exploitation of natural resources (Karasmanaki and Tsantopoulos, 2019). Therefore, if the above steps are taken, rural decline and outmigration of young people from rural to urban areas could be reduced (Kwiatkowski et al., 2020).

The aim of the present study is to examine the views and satisfaction of visitors of the Drama international short film festival (DSFF) which is held every year in the Regional Unit of Drama (RUD), in Greece. Based on visitors' responses, the typologies of the festival visitors will be developed. These typologies could be particularly important and be used to plan more efficiently the international art festival in the rural area of Drama. Hence, insights into visitors' satisfaction and into critical correlations may enable policymakers to detect the strengths and weaknesses in RUD but also point to ways to exploit the marketing potential of the DSFF.

## STUDY AREA

### *Regional unit of Drama*

The study area was the Regional Unit of Drama which administratively belongs to the Region of Eastern Macedonia and Thrace in the northern part of Greece. In particular, the Regional Unit of Drama is located in the northernmost part of Macedonia and in the westernmost part of the Region of Eastern Macedonia and Thrace. It covers an area of 3.468 km<sup>2</sup> and the population is estimated at 98,287 inhabitants (Hellenic Statistical Authority, 2019). The city of Drama is the seat of the Municipality of Drama and the wider area is characterized by a unique natural environment including an impressive mountainous area and unspoiled landscapes such as the nature reserve Frakto - Virgin Forest.

The landmark of the mountainous area of Drama is Mount Falakro which belongs to the crystalline mass of Rodopi, with a significant geological substrate of marble (Tsiftsis et al., 2006). Today, the exploitation of marble is the major driver for local economic growth and large marble processing plants with great export activity have been operating in the area. At the same time, the broader area of Drama is isolated due to its geographical position and its predominantly mountainous type. As a result, it is located in a long distance from metropolitan while there is a lack of modern road networks. Indicatively, visitors have to drive more than 50km to reach the highway of Egnatia, which connects the west to the north part of Greece (Figure 1). With the policy currently being implemented, tourism makes a minor contribution to local development and accounts for as little as 6% of the gross domestic product in the region of Eastern Macedonia and Thrace. Other economic drivers supporting local development in Drama involve the primary sector and the exploitation of mining resources (Karamanidis, 2006).



Figure 1. *The study area: The location and map of the regional unit of Drama (source: Google Maps)*

Nonetheless, the regional administrative authority declared 2017 as the year of tourism, thereby recognizing the great potential for tourism development in the region. One of the landmarks for setting the ground of tourism development in Drama could be the annual event of Drama International Short Film Festival (DISFF) which has been held Drama for the last 43 years. The festival, except for its cultural and artistic context, is also oriented towards the promotion of local cultural and natural assets as well as local products. It should be noted that the film festival attracts numerous visitors from Greece and abroad.

#### *Drama International Short Film Festival*

The international short film festival of Drama was launched in 1978 on the initiative of the Drama Film Club and, in mid 1980s, it was placed under the auspices of the Municipality of Drama. The event is held every September and aims at the promotion and dissemination of cinema through Greek and internationally produced short films (DISFF, 2020).

It is worth noting that according to Georgoula (2018) the festival hosts about 10,000 visitors from 40 countries every year. Indisputably, the city of Drama has benefited greatly from the festival especially in terms of infrastructural improvement which in turn provides a satisfactory experience to visitors.

The festival was widely acknowledged by the public in mid 1980s, when it was established as a cultural institution. In August 1996, the Ministry of Culture recognizing the importance of the festival along with its growing international prestige included the festival in the Network of National Cultural Cities. The inclusion resulted in the participation of the festival in a cultural network of Panhellenic scope as well as the regular funding from the Ministry of Culture and the Municipality of Drama. Moreover,

due to the high level of the artistic works presented in the festival, the European Film Academy (EFA) has recognized the short film festival as one of the most important festivals in Europe. In addition, both Fipresci (International Federation of Film Critics) and the Hellenic Parliament have been awarding the international department of the festival with special prizes of honor. During the period 2014-2018, there was an increase in the participation of both Greek and international films while the total number of visitors increased by 12.5%.

Today, the short film festival of Drama stands as a major attraction for various visitors who comprise the Greek and international cinema world. According to Sakkas (2017), the organization already supports and intrinsically promotes the local assets and tourism. The latter highlights the festival as a significant brand name, able to enhance tourism in the area. However, this potential should be regarded as strength if certain preconditions are met. Namely, there is a need for the festival to increase its extroversion in the market and to interact with the various elements of the existing cultural assets. To this end, it is of great importance to exploit financial tools and pursue fruitful collaborations at various levels.

On the other hand, the weaknesses of the festival can be found in the lack of infrastructures such as efficient building stock, the limited resources available for the operational and organizational procedures and the absence of an integrated plan for promotional activities able to increase the popularity of the festival.

Taking all the above into consideration, it could be argued that the short film festival of Drama is an event which is highly recommended for visitors, while the variety of natural and cultural features in the broader area offer an added value to the tourism product of Drama. In addition, if festival attendees are able to combine their visit to the festival with activities related to alternative tourism, then the region may follow an integrated development plan.

## **MATERIALS AND METHODS**

The results presented in this paper are part of a broader study that was conducted in the Regional Unit of Drama in Greece during November 2016 - September 2017. A structured questionnaire was used as the research tool for the data collection. The population under investigation included the visitors of the short film festival of Drama and, in total, 500 visitors completed the questionnaire. The method of personal interviews was used in order to ensure higher response rates and, in this way, it was also ensured that all respondents would comprehend the questions.

The present study analyzes specific variables related to the visitors' demographic characteristics, respondents' view on whether the Regional Unit of Drama is a value for money holiday destination and a destination of major cultural interest, the overall expectations fulfilment, the general evaluation

of the existing tourist services, the possibility of recommending the Regional Unit of Drama to other potential visitors, the importance of maintaining the particular cultural character of the region, and the visitors' intention to buy agricultural and livestock products. In terms of statistical analysis, the collected data were analyzed with the Statistical Package for the Social Sciences (SPSS). More specifically, descriptive statistics, Categorical Principal Components Analysis, Principal Components Analysis, Categorical regression and Cluster analysis were applied for the data processing.

## RESULTS

### *The visitors' demographic profile*

In terms of gender, 59.2% of respondents were men and 40.8% were women. The majority belonged to the age classes of 18-30 (49%) and 31-40 (28.8%), followed by respondents older than 60 (by 10.8%), and aged between 51-60 (by 7.2%). As few as 4.2% of respondents were aged between 41-50.

As for their educational level, a significant number of respondents were high school graduates (27.6%) and university or technical institution graduates (26.8%). Furthermore, 16.4% were graduates of technical schools, 14.8% were high school graduates and 14.4% had only attended primary school education.

The marital status of the respondents was also investigated. Thus, almost four out of ten of the visitors were married (40.7%), followed by widowed and divorced (31.1%) and unmarried (28.2%) visitors. Regarding the number of children, the category "two children" is prevailing with a percentage of 37.4% respondents, followed by the categories "one child" with 37.4% visitors. In addition, 26.8% stated not having any children. Therefore, the average number of the visitors' children is estimated as 1.28 (SD 0.945, s.e. 0.043).

In addition, visitors' occupation was analyzed. According to the findings, an appreciable share of visitors were private Employees (30.9%), followed by undergraduate students (16.4%), pensioners (15.7%) and crop and livestock farmers (12.5%), respectively. Lower percentages were recorded for freelancers (9.3%), civil servants (8.8%), and housewives (5.1%). Conversely, respondents who were unemployed accounted for only 1.2% of the DSFF visitors. Regarding the origin of the visitors, the vast majority came from places that are away from RUD (56.6%), 22.4% of respondents were "locals" while 21% stated they "were married to someone from the area".

### *The visitors' experience evaluation*

The visitors were asked whether Drama is a value for money destination and, interestingly, more than half visitors (54.9%) considered that it is. Yet, approximately six out of ten perceived that it is not a destination with special cultural interest. In addition, three in four respondents felt that the destination

has not met their expectations. Concerning visitors' overall assessment of tourism services, 81.2% of respondents considered that tourist services are at an average level. Moreover, almost one in two visitors (by 48.4%) would not recommend visiting the Regional Unit of Drama or would recommend it only to few people as tourism destination. In addition, it should be noted that the maintenance of the particular cultural character of the region was considered by respondents as less important (46%) to attract tourists. Interestingly, most visitors (67.0%) expressed a strong intention to buy agricultural and livestock local products.

#### *DSFF Visitors typology*

Respondents' views were examined in order to determine the types of visitors attending the festival with similar characteristics. For the purposes of the study, Categorical Principal Components Analysis (CATPCA) was used. The variables used in this analysis were:

- The RUD is a value for money tourism destination
- The RUD is a destination of major cultural interest
- Fulfillment of expectations
- Evaluation of tourism services
- Recommending the RUD to other potential visitors
- The importance of maintaining the particular cultural character
- Intention to buy agricultural and livestock products

The solution of two dimensions provided values of characteristic root  $\lambda_1= 2.932$  and  $\lambda_2= 1.626$ , while the Cronbach's reliability coefficient alpha was estimated as being 0.911. The variable loadings of the principal components are presented in Table 1. In order to meet the general criterion for convergence 0.00001, 54 iterations were conducted. The first Dimension accounts for 40.07% of variance, while the second Dimension accounts for 25.04%.

| Variable  | Dimension 1 | Dimension 2 |
|---|-------------|-------------|
| The RUD is a value for money tourism destination                | 0.823       | 0.060       |
| The RUD is a destination of major cultural interest             | -0.746      | -0.332      |
| Fulfillment of expectations                                     | -0.697      | 0.039       |
| Evaluation of tourism services                                  | -0.362      | -0.010      |
| Recommending the RUD to other potential visitors                | 0.303       | 0.891       |
| The importance of maintaining the particular cultural character | -0.175      | 0.919       |
| Intention to buy agricultural and livestock products            | 0.913       | 0.005       |

Table 1. *The loadings of the principal components*

The variables "Intention to buy agricultural and livestock products" and "The RUD is a value for money tourism destination" had the highest positive loadings in terms of the first dimension. On the other hand, the highest negative loadings appeared for the variables "Fulfillment of expectations" and "The RUD is a destination of major cultural interest".

As for the second Dimension, the variables "The importance of maintaining the particular cultural character" and "Recommending the RUD to other potential visitors" had high positive loadings. Moreover, based on the quantified values of observations, the diagram of the scattering of the variable categories was created (Figure 1).

The high loadings in the two dimensions enable their identification and interpretation. The first Dimension involves the variables related to the satisfaction of the visitors with their experience as tourists and the recommendation of the Regional Unit of Drama to other potential visitors. Therefore, it could be termed "RUD visitors' satisfaction". The second Dimension could be titled "Particular cultural character of RUD" as it is formed by variables related to the cultural identity and the local agricultural and livestock products.

Concerning the factors that affect the abovementioned dimensions which represent the visitors of the film festival, factors' possible correlations with various independent variables were then investigated. The factorial degrees given by Categorical Principal Components Analysis, which was conducted previously, were used as measures for the estimation of the dependent variables.

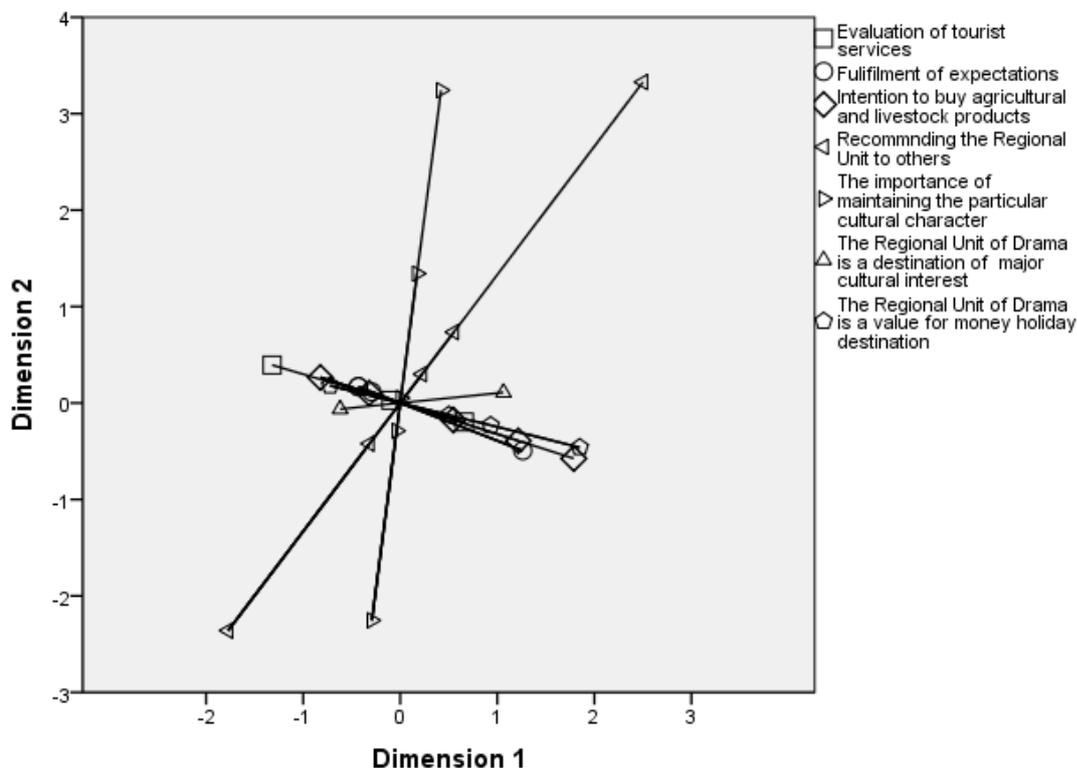


Figure 2. Scattering of the variable categories

Next, the simultaneous combined correlation between visitors' type (CATPCA scores) with their demographic characteristics was examined. To that end, Categorical regression was conducted (Tables 2 and 3).

For the first Dimension (Table 2), it was indicated that there is a correlation among the visitors' type and a) educational level, b) family status, c) number of children and e) main occupation. However, no significant statistical difference among the visitors' type and the other examined variables was observed. According to Pratt's index of relative importance, it was indicated that the most important variables, in terms of weight in the sub-sample, are the main occupation, the family status and the educational level. In other words, visitors' satisfaction with their visit in the Regional Unit of Drama depends mainly on the main occupation, the family status and the educational level. The higher the values of these variables, the higher the satisfaction of the visitors.

| Variable  | Beta   | SE    | p     | Pratt Index |
|---|--------|-------|-------|-------------|
| Gender  | 0.043  | 0.022 | 0.053 | 0.005       |
| Age   | -0.093 | 0.089 | 0.297 | 0.071       |
| Educational level   | 0.154  | 0.040 | 0.000 | 0.053       |
| Family status   | 0.123  | 0.034 | 0.000 | 0.077       |
| Number of children  | -0.182 | 0.032 | 0.000 | 0.002       |
| Main occupation   | 0.791  | 0.056 | 0.000 | 0.793       |
| R <sup>2</sup> =0.936, Beta: Regression coefficient, SE: Standard error |        |       |       |             |

Table 2. Results of Categorical Regression regarding the demographic characteristic which affect visitors' satisfaction

As regards the second Dimension (Table 3), it was indicated that it correlates with a) gender, b) age, c) family status, d) marital status and e) main occupation. Based on Pratt's index of relative importance, it was indicated that the variables with the greater weights in the subsample were (in a declining order) main occupation, age, number of children, and family status. The special cultural character of the Regional Unit of Drama is highly dependent on respondents' main occupation, age, number of children and family status. The higher the values of these variables, the greater the satisfaction of the visitors.

| Variable           | Beta   | SE    | p     | Pratt Index |
|--------------------|--------|-------|-------|-------------|
| Gender             | 0.319  | 0.061 | 0.000 | -0.070      |
| Age                | -0.417 | 0.199 | 0.013 | 0.102       |
| Educational level  | -0.238 | 0.180 | 0.187 | 0.011       |
| Family status      | 0.404  | 0.126 | 0.000 | 0.031       |
| Number of children | 0.229  | 0.082 | 0.006 | 0.042       |
| Main occupation    | 0.903  | 0.058 | 0.000 | 0.885       |

R<sup>2</sup>=0.733, Beta: Regression coefficient, SE: Standard error

Table 3. Results of Categorical Regression regarding visitors' demographic characteristics which affect the special cultural character of the region

In the next stage of the analysis, and in order to identify the types of visitors who attend the festival, Cluster Analysis was carried out. Again, the factorial degrees that resulted from the Categorical Principal Components Analysis, which was previously conducted, were used as dependent variables. The analysis gave four types of visitors: Festival 1, Festival 2 Festival 3 and Festival 4 (Figure 3).

|                    | Type of festival visitors in Drama |       |       |       |
|--------------------|------------------------------------|-------|-------|-------|
|                    | 1                                  | 2     | 3     | 4     |
| Dimension 1        | 0.47                               | -0.62 | 1.14  | -1.13 |
| Dimension 2        | 4.24                               | -0.38 | -0.11 | 1.23  |
| Number of subjects | 13                                 | 255   | 182   | 50    |

Table 4. Cluster centers for each type of festival visitors

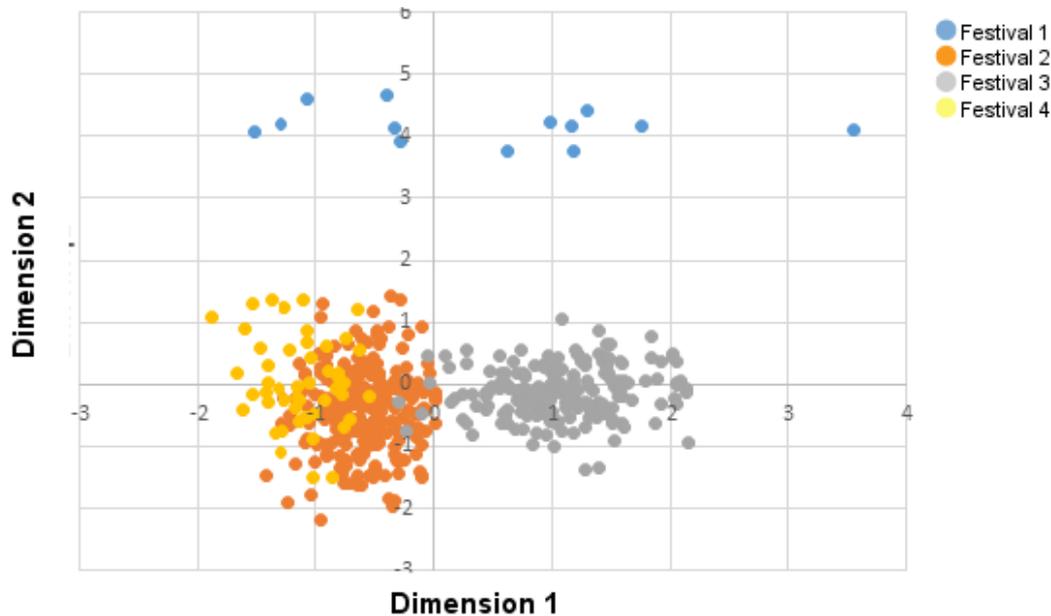


Figure 3. Identification of the types of festival visitors in the two-dimensional space

The identification of types reveals a significant differentiation among the four visitor types:

- Festival 1: This visitor type consists mainly of visitors aged between 41-50 years, who hold a technical school degree, have one child and are mainly occupied as freelancers. These visitors expressed a moderate satisfaction with visiting Drama but acknowledged to a high extent the particular cultural character of the region.
- Festival 2: This visitor type involves mainly male visitors, who are married and aged between 18-30 years. In terms of their educational level, most are high school or university graduates, and, as for their occupation, they are employed in the private sector or are pensioners. These visitors were dissatisfied with the visit in the RUD but evaluated moderately the cultural character of the area.
- Festival 3: Type 3 consists mostly of women aged between 18-30 whose education level ranges up to secondary school. In terms of their family status, most of these visitors are divorced or

widowed with two children. This type of visitor expressed the highest satisfaction level with the Regional Unit of Drama. However, these visitors are only moderately convinced that the Regional Unit of Drama possesses a particular cultural character.

- Festival 4: In this visitor type there are mainly men aged between 31-40, who are high school or university graduates. In terms of their family and occupation status, they are mostly married and private employees. This type of visitors is the least satisfied with their visit in the Regional Unit of Drama, however, these respondents evaluated positively the cultural character of the region.

## CONCLUSIONS

The aim of this study has been to identify the types of visitors attending the short film festival of Drama based on their satisfaction with the visit in Drama. The identification of visitor types is considered critically important in guiding efforts to design effective measures which will improve the provided services and products. The aim of the study was met as the visitor types and the characteristics of each type have been identified.

Important correlations among certain characteristics of the festival and visitors' overall satisfaction led to the identification of four tourist types. These findings could serve as the basis for further analysis in order to enable the managers of the festival and policymakers in Drama to formulate a more efficient communication policy. This effort, however, presupposes strategic planning which will ensure that the festival meets all the necessary standards to enhance tourism growth in the region. Therefore, such changes can be considered important especially because the majority of visitors expressed their intention to visit again Drama in the future. In addition, the Regional Unit of Drama has a special cultural importance for most festival visitors, who expressed a pronounced intention to support the local market through the purchase of local agricultural and livestock products. In view of this intention, priority should be given to the provision of affordable high-quality local products of the primary production sector.

This study has also revealed that visitors regarded the Regional Unit of Drama as a value-for-money destination, although the provided tourism services received a poor evaluation, which in turn led to visitors' low satisfaction with the overall experience in the area. An explanation might be the low satisfaction levels with the festival itself; that is, it is possible that the visitors who were dissatisfied with the content or the quality of the festival production have expressed negative views on their evaluation.

Furthermore, the recognition of visitor types using cluster analysis can lead to interesting conclusions as positive correlations have been identified with certain variables. In specific, satisfaction with visiting

the Regional Unit of Drama and the acknowledgment of its special cultural identity are closely related to visitors' main occupation and family status. However, there were rather negative correlations including average satisfaction for female visitors up to 30 years old and male visitors between the ages of 41-50, who hold a low educational degree. This type of visitors regards also as average the cultural character of Drama.

The findings have also pointed to the need for introducing strategic planning in order to achieve greater tourism development in Drama. At the same time, there should be more integrated efforts towards the improvement of the tourism product of Drama. In other words, certain advances in the provided tourism services and existing infrastructures are required, as these are the primary features comprising the tourism product of RUD.

Moreover, the contribution of the short film festival should be acknowledged as a vital part of the development route in the Regional Unit of Drama. In fact, the festival is already considered by many film experts a milestone for Greek cultural events. Meanwhile, official data confirm the popularity of the festival as a tourism attraction while the number of festival visitors is maintained at a fixed level. However, it should be noted that an important number of festival visitors are local residents who make use of free invitations which are offered by the organizers to the citizens of Drama every year in order to ensure the success of the event. The increased number of the local visitors due to this initiative, however, does not reduce either the artistic prestige of the festival nor the need for its better promotion. The positive effect of local people on the festival can be confirmed by Yozukmaz et al., (2020) who stated that interactions between local people and visitors in festivals play an important role in tourism experience. Moreover, an increased number of visitors is recorded in activities carried out in the context of the festival such as "the festival which travels" which involves the screening of films in other cities or countries. Hence, it should be investigated whether this additional screening is accompanied by a corresponding increase in the number of visitors from other areas. Moreover, in order to shed more light on the efficient promotion of the festival, future research should examine the interaction between the festival trips and performances in other destinations as well as the corresponding rise in tourists in these destinations.

It is also highly recommended to further elaborate and examine all the above findings and prioritize the promotion of the festival as a strength for local development through the enhancement of alternative tourism. Unfortunately, Sakkas (2017) concluded that efforts to improve the region have been abandoned. Meanwhile, the findings of this research have shown that there is still substantial room for improvement. An example of improvement could be the design and introduction of innovative and case-based marketing strategies aiming to efficiently promote this unique international film festival. It

is critical though, to engage all the local, regional and national authorities, as well as the relative agencies, and organizations into decision making and cooperation on a multi-level scale.

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# THE EFFECTS OF SERVICE AND INFRASTRUCTURE QUALITY ON TOURIST SATISFACTION AND REVISIT INTENTIONS: INSIGHTS FROM NORTHERN GREECE

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## ABSTRACT

The aim of this paper is to investigate the satisfaction of visitors attending the Christmas event “Oneiroupoli” (Dreamland) which is held every Christmas in the city of Drama, in Greece. In specific, this study examined visitors’ satisfaction with the provided services and infrastructures in the area as well as their revisit intentions. In addition, it was explored whether visitors would recommend visiting Drama to their friends and whether they would be interested in participating in other activities during their visit to Oneiroupoli. To achieve the aims of the study, 503 questionnaires were completed by visitors attending “Oneiroupoli” and to analyze the collected data, descriptive statistics, the non-parametric Friedman test and categorical regression analysis were performed. Results showed that most visitors had visited the area again in the past and were satisfied more with services than infrastructures. However, the results have clearly indicated that the services for parents with four children and for unmarried visitors ought to be improved. In terms of infrastructure, visitors’ responses have shown that the road network needs to be improved. In addition, most respondents would be interested in participating in activities like mountaineering, cycling and skiing while attending Oneiroupoli. At the same time, they would recommend this destination to their friends so they can also enjoy the local natural wealth, cultural activities and Oneiroupoli. The results of this study could be particularly useful to policymakers and relevant stakeholders in order to exploit natural resources and to enhance the services provided to visitors.

*Keywords: Perception, visitors, local development, Christmas events, satisfaction, service quality, infrastructure quality, Oneiroupoli.*

## INTRODUCTION

In Greece, the intensive urbanization that occurred after the second world war led to a massive internal and external migration. Urbanization and the changes in the dispersion of residents in the Greek territory resulted in an uneven development and expanded the differences between areas (Chatzitheodoridis et al., 2016). The exploitation of local resources consists not only a basic condition for achieving and maintaining local development but also for ensuring capital inflow which can form the basis for multi-level development. Local development, however, is a continuous and complex process that interacts with multiple factors, which can in some cases be obvious but in others be less obvious (Gavalas et al., 2014).

Tourism dynamics consist a major factor in changing the local social and economic structure (Loukissas, 1982). At the regional level, tourism assumes an even greater importance because it creates new jobs while offsetting the loss of jobs in sectors which lose their competitive advantage over time, such as agriculture. The contribution of tourism to the prosperity of an area, in economic, social and cultural terms, is both proven and desirable. In particular, tourism can ensure the inflow of foreign exchange while it consists a key driver of local economy through the jobs arising from tourism and the fulfilment of needs at the level of infrastructure and services (Andereck and Nyaupane, 2011; Guaita Martinez et al., 2019). According to Varvaresos and Sotiriadis (2002), tourism can provide jobs to that part of the workforce that often consists the hard core of unemployment and includes young individuals, women and unskilled staff. The same research team indicated that unemployed individuals who are absorbed in tourism are mostly trained in occupations which are unrelated to tourism. Hence, tourism has the ability to create jobs for unemployed individuals as the tourism sector is not overly demanding in terms of specialized technical knowledge. In relation to culture, tourism is a first-class opportunity for bringing together people of different cultures (Mowforth and Munt, 2003; Almeida et al., 2016). Tourism can, however, have negative effects on the natural and anthropogenic environment especially when it takes the form of mass tourism (Urdang and Howey, 2001; Guaita Martinez et al., 2019).

In the regional unit of Drama, various events aiming at promoting the unique character of the area and the local products are held every year. Most of these events are quite successful and attract visitors from the entire country and abroad. Such events include the Drama International Short Film Festival, "Draminognosia" and "Oneiroupoli" with the latter being by far the most known event held in Drama. In particular, since 2003 and every year for a whole month during the holiday season of Christmas (from the beginning of December to the beginning of January), the Municipal Garden and the Eleftheria Square in the city of Drama are transformed into a Christmas village. In the context of the event, numerous, free of charge activities are addressed mainly to children while many forms of recreation

such as concerts with famous artists and other recreational activities are offered to older visitors. Therefore, it is no surprise that during the Christmas period the city of Drama is flooded by visitors with more than seven million visitors having visited Oneiroupoli since 2003 (Regional Unit of Drama, 2019).

Service quality and customer satisfaction are broadly recognized as critical factors in creating competitive advantage and maintaining existing customers. The overall satisfaction with the experience as visitor is a function of satisfactions which result from the individual characteristics of all products and services which consist the experience, such as accommodation, climate, natural environment, social environment and so forth (Pizam and Ellis, 1999).

Hence, the aim of this study is to investigate Oneiroupoli visitors' satisfaction with infrastructures and services as well as their intention to revisit and the possibility that they will recommend Drama to their friends as a destination. The results of the present study can be used not only to improve the quality of the provided services and infrastructures but also to promote local development in a region which possesses significant natural wealth.

## **THEORETICAL BACKGROUND**

The greatest difficulty, which tourist businesses face, is perhaps to find and maintain valuable customers especially in a time that intense international competition prevails. According to Hayes and Miller (2011), for businesses it is far more important to create customer devotion than to maximize revenues in the short-term. That is because customers, who are devoted to a specific product or service because it meets a certain need, do not feel the need to look for other products or services (Kristensen et al., 2000; Westlund et al., 2001). It can be said that loyal customers are those who can lead a business to success over time. Reichheld (1996) found that customers remain loyal to a business because of the value they receive from it. Maintaining loyal customers requires, of course, constant efforts on the part of the business while communication with customers is an important tool to earn their loyalty.

There is a general consensus that customer satisfaction is often reliant on the quality of the product or service (Levesque and McDougall, 1996). Moreover, Parasuraman et al. (1985) pointed out that when the perceived quality of services is high, it can increase customer satisfaction.

From this perspective, it becomes quite relevant to detect what affects customer satisfaction. Saad Andaleeb and Conway (2006) identified the factors affecting customer satisfaction in the food service industry. The results of their study indicated that customer satisfaction is mostly influenced by business employees' feedback and service followed by price and finally the quality of products and services. Conversely, the design as well as the image of the food business had little effect on customer satisfaction.

The relationship between hotel guest satisfaction and the level of provided services is a point that has been consistently examined. Most of these studies have concluded that satisfaction is primarily dependent on the quality of the provided services (Hayes, 2008; Reisig and Chandek, 2001) and secondarily on other factors like hospitality (Poon and Low, 2005) and atmosphere in the hotel (Carey, 2008). Moreover, Dominici and Guzzo (2010) observed that the success of a hotel business is not limited to attracting new guests but extends to maintaining the existing guests and establishing effective policies which will create satisfied customers.

The investigation and understanding of customer satisfaction have today become a wide research field and a subject to many theoretical approaches. Greek researchers have also focused on customer satisfaction. Indicatively, Arabatzis and Grigoroudis (2010) used the MUSA methodology (Multicriteria Satisfaction Analysis) in order to explore the satisfaction levels among the visitors of the Dadia-Lefkimi-Soufli Forest National Park in Northern Greece. In addition, Velissariou and Gogou (2009) sought to measure the satisfaction of guests in ten hotels in the city of Larisa and found that the guests were overall satisfied but pointed to the need to upgrade the provided services in hotels. In this case, hotel managements need to consider these study results and improve their provided services by providing enhanced services and, at the same time, upgrading their facilities (Velissariou and Gogou, 2009).

## **STUDY AREA**

### *Regional unit of Drama*

The area of study was the regional unit of Drama which is part of the Region of Eastern Macedonia and Thrace in Greece. The regional unit of Drama is located in the northernmost part of Macedonia and in the westernmost part in the administrative region of Eastern Macedonia and Thrace. It covers an area of 3,468 km<sup>2</sup> and has a population of 98,287 inhabitants (Hellenic Statistical Authority, 2019). The regional unit of Drama is abundant in natural resources and is known for the Falakro Mountain, which is one of the highest mountains in the country. Today, marble exploitation consists the key element in the development of the region and the existing marble processing facilities are not only considered as the greatest and most modern in the country, but also present a remarkable export activity.

The prefecture of Drama is mainly mountainous and located away from the country's largest urban centers and main road axes. It should be noted that a significant part of the local population emigrated abroad during the 1960s and other Greek regions in the 1970s. In particular, during the five-year period from 1959 to 1964 a total number of 16,359 inhabitants migrated from the prefecture of Drama, which back in 1961 had a population of 121,000 inhabitants. Moreover, the population in the prefecture corresponded to 1.44% of the total Greek population, while the people who migrated from the Drama

prefecture accounted for 3.89% of the overall number of immigrants during 1959-1964 (Mandatzis, 2019).

The region suffered further decline with the almost entire abandonment of the once prosperous tobacco cultivations. On top of that, in late 1980s the region was hard hit when most readymade garment businesses closed. The first business of this type started to operate in 1974 and employment followed an upward trend reaching 5,640 job positions in 1989 while mostly women (by 94%) were employed in these businesses (Papamichail, 1996). The negative effects of this situation together with the need to comply with the new agricultural policy were particularly felt in the mountainous, disadvantaged areas (as they have been characterized according to the Directive 75/268/EEC) in the prefecture of Drama (Drama Development Company S.A., 2019).

However, the region has an exceptional tourism potential, and, thanks to the diversity of the local landscape, visitors can get acquainted with every form of natural environment. For instance, from November to April, ski enthusiasts can enjoy snow during their accommodation at the Falakro ski resort. The area, nevertheless, is not attractive only in winter. In spring, a great part of the land is covered in wildflowers and, in autumn, the color changes before the leaves fall off the trees in the forest of Elatia and the Virgin Forest of Frakto can provide a unique experience to visitors. Visitors can also wander in the spruce forests, go mountain hiking, enjoy mountaineering and climbing but also bask in cultural activities such as visiting post-Byzantine churches, archaeological sites, local museums as well as attending folklore events and local fairs. In addition, agritourism enthusiasts have the opportunity to experience life in the countryside and enjoy the hospitality of local people as well as observe all kinds of agricultural activities.

Despite the tourism potential in the area, tourism consisted and still consists only a minor percentage (6%) of the regional gross domestic product and, consequently, it does not have a notable impact on local economy which is based mainly on other sectors such as the primary sector and mineral wealth exploitation (Karamanidis, 2006). Nevertheless, the Region of Eastern Macedonia and Thrace declared 2017 as the “Year of Tourism” in recognition of the great contribution to local economy that tourism can make (Region of East Macedonia and Thrace, 2017).

Even though tourism does not contribute significantly to local economy, the various events which are held every year aim at promoting the local character and the products of the area while they are able to attract a lot of visitors from the wider area, the entire country and other countries.

### *Oneiroupoli*

According to the official site of the event (Oneiroupoli, 2019), “Oneiroupoli” which means “Dream city”, is an event which is held every year in the center of the city of Drama and lasts almost a month. In the context of the event, concerts, theatre and dance performances, sport activities, games as well as

other educational and recreational activities are carried out. It should be noted that visitors can attend all these activities and events for free. The event begins in early December and lasts a month while it was first held in 2003. The Municipality of Drama is responsible for the organization and dozens of volunteers support the event every year. Beside attending activities and concerts, the visitors of Oneiroupoli can also taste traditional local delicacies and purchase souvenirs from the stalls which are placed in the site of the event.

In 2018, "Oneiroupoli" covered an area of 12,000 sq.m. with thematic open and sheltered spaces. According to the Municipality of Drama, visitors have exceeded the seven million mark since 2003. It is also interesting to pay attention to some data. That is, from 2012 to 2016 the number of visitors rose from 200,000 to 400,000 while the number of events increased from 215 to 300 with concerts being held once to twice a week. One of the objectives set by the Municipality of Drama was to increase the number of visitors from the neighboring countries. To that end, in 2015 there were many targeted actions including the advertisement and promotion of the event in Balkan countries, contacts with foreign tourist agents and participations in tourism exhibitions in Bulgaria and Turkey. In addition, for the first time there is evidence on the promotion of the event on the Internet as well as on social media (Facebook, YouTube, Instagram, Flickr). The main aim of the organizers is to render Oneiroupoli a self-funded event in the next years, an objective that seems to be already met.

## **MATERIALS AND METHODS**

The research instrument was the questionnaire and in total 503 visitors participated in the study. To achieve higher response rates and to ensure that all participants would comprehend the questions, the questionnaires were completed through personal interviews. Hence, the questionnaires were collected during the conduct of Oneiroupoli in December 2016 and were completed through personal interviews with the visitors.

The results presented in this paper consist part of a wider study which investigated tourism development in the regional unit of Drama. In this study, the variables related to visitors' socioeconomic characteristics, their satisfaction with the services and infrastructures, the activities in which they would like to participate, reasons for not revisiting and the possibility to recommend Drama to their friends were analyzed. In terms of data analysis, the collected data were analyzed with the Statistical Package for the Social Sciences (SPSS) and the data were processed using the SPSS statistical program. In specific, descriptive statistics, the non-parametric Friedman test and categorical regression were conducted. Descriptive statistics is used to describe all variables and the non-parametric Friedman test is used to rank the sub-topics. In addition, categorical regression is used to

predict the values of the dependent variable for every possible combination of independent variables once the quantified data of categorical variables have been quantified.

## RESULTS

### *Demographic characteristics*

Respondents' gender, age, education level, family status, occupation and some information concerning their visit to Drama were recorded. In terms of gender, there were slightly more male (51.7%) than female respondents (48.3%). It was observed that most visitors (77.7%) were under the age of 51 and, in specific, large proportions of respondents fell into the age categories of 18-30 (by 29.6%), 31-40 (by 28.6%) and 41-50 (by 19.5%). On the contrary, only 11.3% and 10.9% of visitors were aged between 51-60 and were over 60, respectively. As for their education level, most respondents were high school graduates (by 37%) and university or technological institution graduates (by 28.4%). In addition, 15.5% of respondents had attended a technical school, 10.5% were primary school graduates and 8.5% were secondary school graduates. In terms of their marital status, about half respondents (by 47.5%) were unmarried while a large share of visitors was married (42.5%) and only 9.9% were widowed or divorced. Moreover, slightly over half respondents (50.1%) had no children and considerable shares had two children (21.7%) and one child (14.9%). As for their occupation, appreciable shares of respondents were private employees (20.7%) and crop/livestock farmers (20.3%). Unemployed respondents accounted for 11.9%, workers accounted for 10.7% and public servants accounted for 10.3%. However, significantly lower shares of visitors were university students (8.5%), pensioners (7%) and freelancers (5.8%). In addition, only 4.8% were not engaged in paid work but were merely involved in household chores. Respondents' place of residence was also reported and, interestingly, most visitors (by 78.8%) were not residents of the Drama prefecture, whereas as few as 4.8% of visitors were local residents and 16.3% were married to someone from the area. More analytically, the majority (39.4%) resided in the Greek province of Macedonia, and considerable shares resided in Thrace (27.4%) and in other areas of Greece (20.3%). It is also worthwhile to note that only 9.5% of visitors were residents in the city of Drama and only 3.4% of visitors lived abroad. Further information on respondents' visit to Drama was recorded. In specific, the visitors in their majority (by 65%) had visited Drama twice, 35.2% visited Drama for the first time, 37.8% for the second time and 27% many times. In addition, a substantial share of respondents (27%) reported they have visited Drama many times. The manner in which respondents organized their visit to Drama was also investigated and, it was indicated that the strong majority (78.7%) organized it on their own whereas 22.3% of visitors used travel agencies. Over half visitors (54.5%) travelled to Drama with their family and 24.1% were travelling with their friends. Moreover, only one in ten visitors (11.1%) travelled alone while 7.8%

travelled with their partners and only 2.6% travelled in a tour group. What is more, for many visitors (63.4%) the visit to Drama and the event of Oneiroupoli was part of a wider visit to Macedonia whereas fewer visitors visited Drama during a trip to Thrace (13.5%) and Greece in general (10.1%). In addition, 9.3% of visitors were travelling to Bulgaria. Finally, around half respondents (49.3%) would stay one day, 42.5% would stay two days and 8.2% would spend only a few hours in Drama.

#### *Visitors' satisfaction with services*

The satisfaction of Oneiroupoli visitors with the provided services is particularly important as it can point to weaknesses and areas that need to be improved. Respondents were thus asked to evaluate the provided services and their responses were analyzed with the non-parametric Friedman test. According to the results, visitors were mostly satisfied with volunteers' services, music and dance performances, game safety as well as the activities addressed to children. Conversely, they were less satisfied with the quality and prices of local traditional products ( $N= 503$  Chi-Square= 234.91  $df = 8$   $p<0.001$ ). Visitors also stated the degree to which services should be improved. In particular, they perceived that there should be substantial improvement in information signs in archaeological sites, signposting at local attractions, travel maps and guide brochures while a tourist information center should be created.

Visitors' intention to buy agricultural and livestock products from local farmer associations was also examined and, interestingly, the majority of respondents (by 67%) expressed their intention to buy. This finding is exceptionally important and can be used to establish a potential "partnership" between tourism and farmer associations with the aim of providing an improved and more complete experience to tourists.

In order to investigate the factors affecting visitors' satisfaction with services, categorical regression was carried out. Overall satisfaction with services was used as the dependent variable and the independent variables used in the analysis can be seen in Table 1. The statistical coefficient of multiple determination ( $R^2$  value) equaled to 0.917 while  $F$  scored 198.1 ( $p<0.001$ ) which is statistically important. The standardized regression coefficients of the independent variables indicated that visitors' satisfaction with services was mostly affected by the variables: number of children, occupation, and family status. The  $F$  values of each independent variable showed that the deletion of variables with high  $F$  values renders the sub-sample weak, whereas the deletion of the variable "family status" has a negligible effect on the predictability of the sub-sample. Moreover, the measurements of relative importance of the independent variables showed that the variables number of children (45.3%) followed by occupation (24.2%) and education level (17.8%) made the greatest contribution to the dependent variable.

| Independent variables | beta   | F       | p     | Pratt's relative importance index |
|-----------------------|--------|---------|-------|-----------------------------------|
| Gender                | 0.361  | 80.401  | 0.000 | 0.113                             |
| Age                   | -0.037 | 0.027   | 0.870 | -0.004                            |
| Education level       | -0.455 | 112.684 | 0.000 | 0.178                             |
| Family status         | 0.446  | 10.181  | 0.000 | 0.018                             |
| Number of children    | -0.691 | 98.053  | 0.000 | 0.453                             |
| Occupation            | 0.498  | 51.364  | 0.000 | 0.242                             |

Table1. Factors affecting visitors' satisfaction with services

Taking into consideration the transformation diagrams (which are not presented in this paper due to space constraints) and the signs of the standardized coefficients, it can be inferred that parents with four children were dissatisfied with the services whereas parents with up to three children were more satisfied. In terms of visitors' occupation, freelancers, private employees, pensioners were the least satisfied visitors while public servants and those involved in household work were the most satisfied visitors. As for visitors' education level, primary school graduates were the most satisfied group of respondents and satisfaction levels decreased in higher education levels. In terms of family status, married visitors expressed higher satisfaction levels than their unmarried counterparts and finally, in terms of gender, female visitors were more satisfied with services than male visitors.

#### *Visitors' satisfaction with infrastructure*

The visitors of Oneiroupoli were also asked to evaluate the existing tourist infrastructures in the regional unit of Drama. After conducting the non-parametric Friedman test, hotel accommodation and dining spaces received the highest rankings. These were followed by transport, road network, entertainment spaces and museums-ancient monuments ( $N=503$  Chi-Square= 259.285  $df=5$   $p<0.001$ ).

In order to examine the factors affecting visitors' satisfaction with infrastructures, categorical regression was carried out. Visitors' overall satisfaction with infrastructures was used as the dependent variable and the independent variables used in the analysis can be seen in Table 2. The statistical coefficient of multiple determination ( $R^2$  value) equaled to 0.794 and F scored 75.063 ( $p<0.001$ ) which is statistically important. The standardized regression coefficients of the independent variables revealed that satisfaction with infrastructures was mostly affected by the variables: age, education level, occupation and number of children. In addition, the F values showed that the deletion of the variable "number of children" has a negligible effect on the predictability of the sub-sample. Moreover, the measurements of relative importance of the independent variables showed that occupation (47.3%), number of children (28.4%) and education level (20.5%) made the greatest contribution to the dependent variable.

| Independent variables | beta   | F      | P     | Pratt's relative importance index |
|-----------------------|--------|--------|-------|-----------------------------------|
| Gender                | 0.187  | 11.567 | 0.001 | 0.035                             |
| Age                   | -0.829 | 37.721 | 0.000 | -0.067                            |
| Education level       | -0.783 | 17.608 | 0.000 | 0.205                             |
| Family status         | 0.391  | 31.763 | 0.000 | 0.065                             |
| Number of children    | 0.672  | 10.088 | 0.000 | 0.289                             |
| Occupation            | 0.724  | 82.574 | 0.000 | 0.473                             |

Table 2. Factors affecting visitors' satisfaction with infrastructures

Taking into consideration the transformation diagrams (which are not included in this paper due to space constraints) and the signs of the standardized coefficients, it can be concluded that, in terms of visitors' occupation, freelancers expressed the highest satisfaction whereas private employees expressed the lowest satisfaction with infrastructures. In relation to visitors' number of children, the more children the visitors have, the more satisfied they are with infrastructures. Finally, in terms of education, primary school graduates were more satisfied with infrastructures compared with the other more educated visitor categories.

#### Visitors' revisit intention – Recommending Drama to other potential visitors

The reasons for not revisiting were also examined and, as it can be seen in Table 3, the respondents have stated different reasons for not visiting again Drama in the future (Chi-Square = 195.630, df= 3,  $p < 0.0001$ ). In specific, lack of time (44.5%) and kilometric distance (36.7%) were the most important reasons. Other reasons but less important were the lack of interest (12.3%) and travel cost (6.5%).

|                     | Frequency | Percent | Valid Percent |
|---------------------|-----------|---------|---------------|
| Lack of time        | 213       | 42.3    | 44.5          |
| Kilometric distance | 176       | 35.0    | 36.7          |
| Travel cost         | 31        | 6.2     | 6.5           |
| Lack of interest    | 59        | 11.7    | 12.3          |
| Total               | 479       | 95.2    | 100.0         |
| Missing System      | 24        | 4.8     |               |
| Total               | 503       | 100.0   |               |

Table 3. Reasons for not revisiting

Individuals are more likely to visit a destination if this destination is recommended to them by friends who have themselves visited the destination. For this reason, visitors were asked to assess a set of events, activities and characteristics based on whether these could be reasons for recommending their friends to visit Drama (Table 4). According to visitors' responses, natural wealth and climate, local traditional products, cultural activities and the event of Oneiroupoli were the most important reasons for recommending Drama to their friends. Moreover, the respondents evaluated Drama positively in terms of affordability, wineries, and film festival. Conversely, service quality and alternative activities received the lowest rankings.

| Reasons                               | Mean Rank |
|---------------------------------------|-----------|
| Natural wealth and climate            | 7.02      |
| Local traditional products            | 5.13      |
| Cultural activities                   | 5.12      |
| Oneiroupoli                           | 5.12      |
| Affordable destination                | 4.87      |
| Film festival                         | 4.78      |
| Wineries                              | 4.62      |
| Service quality                       | 4.39      |
| Alternative activities                | 3.96      |
| N=503 Chi-Square=634.266 df=8 p<0.001 |           |

Table 4. The application of the Friedman test for ranking reasons for recommending visiting Drama

*Visitors' desire for participating in complementary activities while visiting Oneiroupoli*

Visitors were asked to state whether they would like to participate in complementary activities during their visit in Drama. As it can be seen in Table 5, visitors were mostly interested in participating in activities related to physical activity in nature and, more specifically, mountaineering, cycling, skiing, other sport activities and nature walks following well-organized systems of trails. In contrast to these activities, visitors were less interested in taking part in gastronomy seminars and educational activities.

| Activity  | Mean Rank |
|---|-----------|
| Mountaineering  | 6.77      |
| Cycling   | 5.82      |
| Skiing  | 5.79      |
| Other sport activities                                  | 5.71      |
| Nature walks following well-organized systems of trails | 5.64      |
| Guided tours  | 5.48      |
| Visits to local wineries                                | 5.33      |
| Horse-riding  | 5.26      |
| Gastronomy seminars                                     | 4.80      |
| Educational activities                                  | 4.39      |
| N=503 Chi-Square=243.299 df=8 p<0.001                   |           |

Table 5. The application of the Friedman test for ranking visitors' preferences for complementary activities

## CONCLUSIONS

It was somewhat to be expected that the majority of visitors in Oneiroupoli would be quite young, namely between the ages of 18 and 40, because Oneiroupoli offers a significant number of activities which are addressed to younger children and concerts which attract the interest of relatively young individuals. In addition, most visitors stated that it was their second time visiting Drama, and many were residents in the wider region of Macedonia and Thrace. For many respondents, the visit in Drama would last two days and was part of a trip to other areas in Macedonia.

The investigation of visitors' satisfaction with services revealed that they were mostly satisfied with the services provided by volunteers as well as the events and activities carried out in the context of

Oneiroupoli. Interestingly, most visitors were willing to buy local traditional products but were dissatisfied with the price and quality of these products. Beside the need to improve local products, visitors pointed to the need for improving signposting at tourist sites and installing information signs in order to facilitate visitors. Admittedly, signposting is relatively easy and requires low cost but can substantially facilitate tourists and improve their experience. Hence, special attention should be given to visitors' satisfaction because high service quality creates not only satisfied but also loyal customers (Levesque and McDougall, 1996; Kumar et al., 2009). In this study, the least satisfied visitors were parents with four children, unmarried individuals and freelancers. These visitor groups could be considered more demanding and, thus, the organizers should take steps to improve the services provided to them.

Responsible bodies should also seek to improve infrastructures since visitors perceived that there are major deficiencies especially in terms of road networks. However, improvements in infrastructure are quite expensive and the unfavorable economic situation of the country poses great difficulty in making such improvements. In addition, it was interesting that private employees and parents with up to three children were the most dissatisfied visitors with infrastructures.

On a general note, it could be stated that visitors were satisfied with their experience in Drama as they would not visit this destination again due to lack of time rather than lack of interest in Oneiroupoli. Visitors' satisfaction was also confirmed by their intention to recommend visiting Drama to their friends so that they can also enjoy the event and the natural wealth in the area.

In order to improve visitors' satisfaction and, at the same time, exploit the natural wealth in the area, it would be useful to provide visitors with the opportunity to participate in other activities during their visit. As shown in this study, visitors were highly interested in taking part in various activities and were very keen on activities carried out in nature such as mountaineering, cycling and skiing. This finding resonates with other studies which have concluded that the natural environment remains a constant point of reference and a driver of local development (Sinclair, 1998; Garay and Canoves, 2010). In conclusion, it could be said that any communication policy is doomed to fail unless it consists part of a wider strategy on the future development of an area. For this reason, businesses, members of the productive sectors and local residents need to cooperate. If wider cooperation is ensured, strategic communication ought to be targeted as well as set clear and feasible objectives. At the same time, the outcomes related to the objectives should be evaluated annually in order to highlight areas that need improvement and to point to the appropriate steps that should be taken.

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## A MULTI-LEVEL FRAMEWORK ON DRIVERS OF COOPETITION

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### ABSTRACT

*A review of the literature on coopetition reveals that the majority of studies focus either on the nature of the phenomenon or on its outcomes. Less attention has been directed on drivers explaining why cooperative agreements rise in an industry. By using an event history analysis, we developed a multi-level framework showing how the likelihood of entering a cooperative agreement is influenced by firm-, inter-firm, and industry-level factors, including the number of previous firm's agreement, the competitors' cultural distance, the number of partners involved, the pace of cooperative agreement, and the total number of cooperative agreement. Implications for research and practice are drawn from results.*

*Keywords: coopetition, joint ventures, proliferation of coopetition, event history analysis, car industry, telecommunication industry, air transportation industry, bank industry, computer programming services industry.*

### INTRODUCTION

A growing number of theoretical and empirical investigations in the literature of management focus on agreements among competitors (Brandenburger & Nalebuff, 1996; Lado et al., 1997; Bengtsson & Kock, 2000; Garraffo, 2002; Gnyawali & Madhavan, 2006; Chen, 2008; Le Roy et al., 2010; Galvagno & Garraffo 2010a). This is not surprising, as the development of competition in national and international markets calls for conceptual contributions and empirical observations on the effects of emerging approaches in cooperative and competitive strategies, in different cultures and industries (Gnyawali & Park, 2011).

A substantial bunch of the literature regards cooperative strategies at different levels (firm, inter-firm, industry-level): *strategic alliances* (Ancarani & Shankar, 2003; Dussauge, et al., 2000; Khanna, et al., 1998), *collective strategies* (Yami & Roy, 2007), *competitive strategies* (Fosfuri & Giarratana, 2009; Lado, et al., 1997), *co-marketing agreements* (Sengupta, 1995), *supply chain relations* (Cachon & Zipkin, 1999; Kotzab & Teller, 2003), *network relations* (Bengtsson & Kock, 2000; Garraffo, 2002; Ritala et al., 2008; Tidström, 2008), and *cooperative R&D projects* (Miotti & Sachwald, 2003; Weck & Blomqvist, 2004).

The concept of coopetition came in the literature of management by two streams of research (Le Roy et

al., 2010; Rusko, 2011). One, based on the idea of cooptition as a game, where different players increase the business “pie” by cooperating with competitors and then competing to divide it up (Brandenburger & Nalebuff, 1996). Another one, related to the alliances literature where, within an alliance, competitive tensions persist among partners (Gomes-Casseres, 1994; Harbison & Pekar, 1998). The first stream of research relies on the idea that one of the most important reasons to cooperate among competitors is to gain a better position in the market and thus achieving a strategic advantage (Hamel et al., 1989). The second stream of research is based on the idea that cooperation and competition are two opposed forces entangled inside each alliance relationship (Park & Ungson, 2001). The majority of these studies analyze the outcomes of cooptition (Afuah, 2000; Baldwin & Bengtsson, 2004; Barbee & Rubel, 1997; Bengtsson & Kock, 2000; Gnyawali & Madhavan, 2006; Hamel et al., 1989; Hokura, 2007; Luo, 2007; Luo et al., 2007; Ritala et al., 2008; Oliver, 2004; Quintana-Garcia & Benavides-Velasco, 2004), while others define the nature and the conceptual boundaries of this phenomenon (Bengtsson & Kock, 2000; Lado et al., 1997; Luo, 2007; Rusko, 2011).

Less attention has been focused on drivers explaining the occurrence of cooptitive agreements among firms that increase the proliferation of cooptition in different industries and markets.

Some contributions already discussed the drivers of cooptitive agreements among competitors (Gnyawali & Park, 2008), but from the perspective of costs and benefits for players. Our paper tries to continue to fill this research area by studying drivers, at firm, inter-firm and industry-level that affect the proliferation of cooptition in different industries. By carrying out an event history analysis in five global industries (air transportation, banks & financial services, computer programming services, motor vehicles, telecommunications) along 10 years, we aim to give a more in depth comprehension of why cooptition has been rising in several industries and what drivers at firm-, inter-firm and industry-level have been influencing its proliferation.

### **Theoretical Background and Hypotheses Development**

To develop drivers that affect the proliferation of cooptition, we chose two key concepts from: a) the transaction costs economics (TCE) (Hennart 1988; Teece, 1986; Williamson 1981) and, b) the competitive dynamics (Baum and Korn, 1996; Chen, 1996; Gatignon et al., 1989; Gnyawali & Ravindranath, 2001; Ketchen et al. 2004; Lambkin, 1988; Smith et al, 1989).

From the TCE we took the concept of “opportunistic behaviors” that are always entangled in cooptition, despite partners agree to carry out together projects that will affect their strategy, market positioning and technological innovation. From the competitive dynamics, we took the “imitative behaviors” that always occur during the competition among firms within an industry but can occur during the cooptition among firms working together, as well.

These concepts are particularly relevant in explaining the proliferation of cooptitive agreements and,

in our framework they complement each other (Kogut, 1988).

Accordingly, the drivers of cooperative agreements that we take into account are: a) at the firm level: the competitors' experience into inter-firm collaborative agreements, and the competitors' cultural distance, b) at the inter-firm level: the number of competitors involved in the agreement, and c) at the industry level: the lag between two consecutive cooperative agreements in the industry, and the total number of inter-competitor agreements in the industry (see Fig. 1) (Galvagno & Garraffo, 2010b).

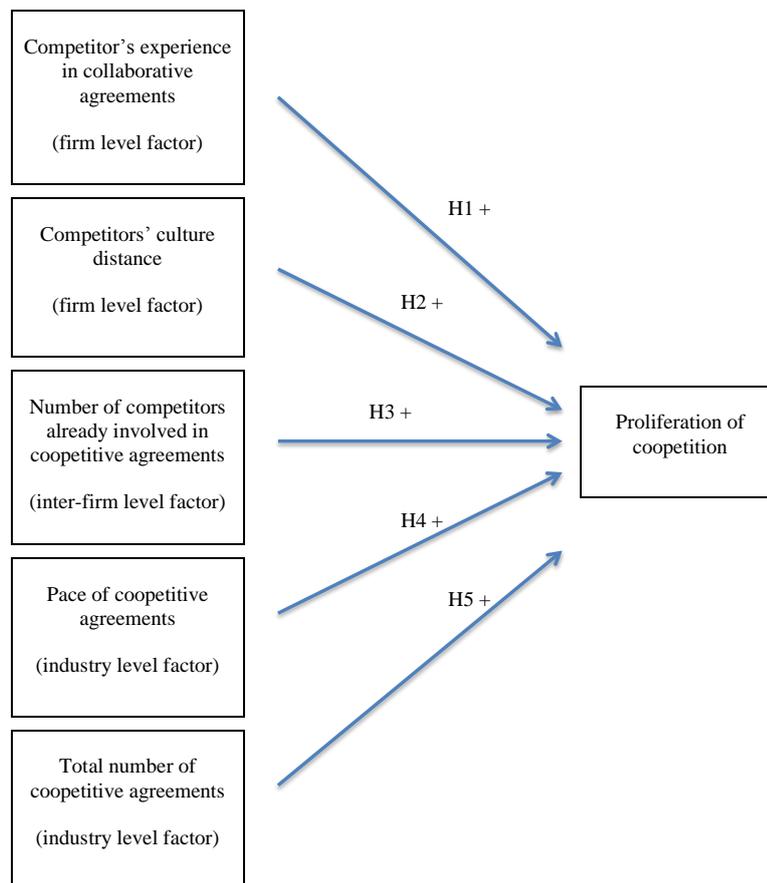


Figure 1. *The proliferation of cooperation: a multi-level framework*

The competitors' experience in cooperation allows arguing that the likelihood of cooperative agreements is higher when we observe a growing number of collaborative competitors in an industry (Bouncken et al. 2020). A firm with previous or on-going programs of cooperation has a track record to be considered trustworthy. Because it is almost impossible, and certainly un-efficient, to foresee every circumstance affecting an agreement and contractually regulate it (Williamson, 1985), a trustworthy competitor is a desirable partner even for another competitor (Kogut, 1991). Therefore:

H1: the greater the competitor's experience in collaborative agreements, the higher the chance to enter a cooperative agreement.

The second explanatory variable at the firm-level, the competitors' cultural distance, is taken into consideration to measure the cultural effect on the proliferation of inbound or outbound agreements among competitors (Contractor & Lorange, 1988, Park & Ungson, 1997; Talay & Cavusgil, 2009). Park

and Ungson (2001) agree with the argument that cultural compatibility between partners is the most important factor in the survival of a global alliance, because the defects in alliances often stemmed from the unobtrusive influence of national culture on behavior and management systems, which may lead to competitive behaviors (Baum and Korn, 1996). Cultural distance, in our perspective, can make the same effect because, within a cooperative agreement, differences in national cultures can create unsolvable conflicts. Partners from different cultures tend to experience a lack of fit in norms and meanings, making coordination more difficult. Therefore:

H2: cooperative agreements are more likely to occur when the partners are from culturally similar countries.

At the inter-firm-level, the chance of a firm to enter a cooperative agreement is affected by the total number of direct competitors already involved in cooperative partnerships (Garraffo, 2002). Accordingly to the literature on competitive dynamics the number of competitors that will execute a course of action is positively affected by the number of firms that already took it (Knickerbocker, 1974; Gimeno, 2004).

Although the costs of coordinating and managing a new agreement increase, as a consequence of the lower number of trustworthy potential partners still available (Williamson, 1985), the remaining competitors belonging the industry facing cooperative agreements focused on specific tasks (technological innovations, product or process innovations, new market opportunities, etc.) will respond by joining a new agreement. Therefore:

H3: the greater the number of direct competitors already involved in prior cooperative agreements, the higher the chance of a firm to enter a cooperative agreement.

At the industry-level, we first argue that the pace of competition in an industry affects the chance of a firm to enter a cooperative agreement. The period of time that separates two consecutive agreements permits to measure the time lag effect of competition in an industry. According to the literature that highlights the role of timing in competition (Chung, 1999; D'Aveni, 1994; Wiggins & Ruefli, 2005), the timing of a firm's action is affected by the pace of competitors' course of actions. In our perspective, the pace of competition will increase if a growing number of other competitors enter cooperative agreements. Therefore:

H4: the higher the pace of cooperative agreements in the industry, the higher the chance of a firm to enter a cooperative agreement.

Moreover, the total number of cooperative agreements in the industry affects the chance of a firm to enter a cooperative agreement. As we already said, a firm's course of action is affected by its competitors' course of action (Chen, 1996; Gimeno, 2004). As a result, a snow ball effect of cooperative

agreements in the industry is predictable as a consequence of the similar cumulative courses of action take by firm competing in the industry. Therefore:

H5: the greater the number of cooperative agreements in the industry, the higher the chance of a firm to enter a cooperative agreements.

## DATA AND METHOD

To test our hypotheses, we decided to focus on all the joint ventures (JVs) between competitors launched from 2010 to 2019 in five large global industries all over the world: car makers (Gwynne, 2009), banks, telecommunications, air transportation (Chiambaretto & Fernandez, 2016), and computer software.

The reasons why we decided to analyse JVs in five different large global industries all over the world are the followings: (a) increasing the ability of the data-set to seize the proliferation of cooperation in industries that differ in terms of: number of firms, competitive scenario, consumer behaviour, alliance activity, product and process innovation, and, (b) testing our hypotheses of drivers leading to cooperative agreements with cases of JVs occurring in different, but in our topic comparable, industries (Galvagno & Garraffo, 2010b; Garraffo & Siregar, 2017).

To create the dataset of JVs we used the Zephyr database by Bureau van Dijk ([www.zephyr.bvdep.com](http://www.zephyr.bvdep.com)). To be included in the study, a JV should meet three criteria: (1) it had to be a 50-50 venture (in term of equity arrangement); (2) it had occurred in the period between January 1<sup>st</sup>, 2010 and December 31<sup>st</sup>, 2019; (3) firms involved in any JV had to be direct competitors that share exactly the same four digits of USSIC codes.

The USSIC codes we took into account in testing the hypotheses are the following: (1) USSIC 3711 – Motor vehicles and passenger car bodies; (2) USSIC 4512 – Air transportation, scheduled; (3) USSIC 4813 – Telephone communications, except radiotelephone; (4) USSIC 6021 – National commercial banks; (5) USSIC 7371 – Computer programming services.

Zephyr database records 49.095 JV occurred in the period of January 1, 2010 to December 31, 2019, within the five industries selected, with 1288 firms involved, 155 of which are censored cases and 1.133 are uncensored ones. The censored cases are firms that have not been involved in any cooperative JV during the observation period, while the uncensored cases represent the firms that have experienced at least one cooperative JV during the period of analysis. Table 1 resumes number of cases employed in the analysis.

| USSIC | USSIC description                                    | censored case | uncensored case | total n. of firm | n. of country |
|-------|--|---------------|-----------------|------------------|---------------|
| 1     | 3711 Motor vehicles and passenger car bodies         | 59            | 192             | 251              | 41            |
| 2     | 4512 Air transportation, scheduled                   | 44            | 235             | 279              | 46            |
| 3     | 4813 Telephone communications, except radiotelephone | 21            | 168             | 189              | 25            |
| 4     | 6021 National commercial banks                       | 17            | 145             | 162              | 28            |
| 5     | 7371 Computer programming services                   | 14            | 393             | 407              | 33            |
| Total |  | 155           | 1.133           | 1.288            | 81            |

Table 1. *Number of cases*

The dependent variable is the likelihood of a firm to establish a cooperative JV during the observation period. Dependent variable is also referred as censoring variable which denotes the event in the Event History Analysis. Event in this research is a condition in which a firm is not involved in any cooperative JV during the observation period. Event is denoted by the value of zero (0) of the censoring variable (cooperation = 0). The occurrence of a cooperative JV is represented by the value of one (1) of the dependent variable (cooperation = 1).

This research employs the duration variable as the time variable (duration). Time variable is defined as the time from the beginning date of the observation period (January 1<sup>st</sup>, 2010) to the date the first cooperative JV occurred for each case (firm). The value of duration is denoted in days. For all the censored cases, January 1<sup>st</sup>, 2010 is assigned as the replacement of the date of the first cooperation. This value is not only needed in completing the value of time variable but also required in computing one of the covariates (time\_lag).

At the firm-level, covariates are: (1) the number of collaborative agreement occurred prior to the first cooperative JV (ncbpre) and (2) cultural distance between acquirer or parent firms (cd\_p). The first covariate (ncbpre) represents the firm's experience in having collaborative agreements before establishing a cooperative JV. This variable designates the number of JVs established by a firm with other firm(s) operating in different industries before that the firm establishes its first cooperative JV.

For measuring the cultural distance of parent firms (cd\_p), we employ a composite index based on the deviation of the four cultural dimensions (i.e. power distance, uncertainty avoidance, masculinity/femininity, and individualism) of each parent firm involved in cooperation (Hofstede, 1983). This measure is a modification of those that first formulated by Kogut and Singh (1988) which then followed by most studies of correlation between cultural distances and joint ventures (Meschi

and Riccio, 2008; Park and Ungson, 1997; Pothukuchi, *et al.*, 2002). In this research, the  $CD_j$  index represents the cultural distance between each parent firm's country of origin involved in each cooperative agreement.

The deviations are corrected for differences in the variances of each dimension and then arithmetically averaged. The index is calculated following the below equation:

$$CD_j = \sum_{i=1}^4 \left\{ \frac{(I_{ik} - I_{im})^2}{V_i} \right\} / 4$$

where  $CD_j$  stands for cultural distance between parent firms in the  $j^{\text{th}}$  cooperative joint venture,  $I_{ij}$  stands for the index for the  $i^{\text{th}}$  cultural dimension of the  $k^{\text{th}}$  and  $m^{\text{th}}$  country in a cooperative joint venture,  $V_i$  is the variance of the index of the  $i^{\text{th}}$  cultural dimension. Though the scaling method imposes weights based on index variance, any resultant measurement error cannot be expected to be correlated theoretically with the other independent variables and should reduce the significance of the statistical relationships (Kogut and Singh, 1988). In this study the  $CD_j$  is operationalized as the variable of  $cd\_p$ .

For the analysis at the inter-firm level, we solely used the variable of number of competitors involved in cooperative agreement ( $nfc$ ). This variable denotes the number of direct competitors (number of firms) of every referent firm involved in competition during the observation period.

Analysis at the industry level includes two industry specific drivers: the number of firms involved in cooperative agreements in a specific industry ( $ncoind$ ) and the time-lag between any two consecutive cooperative agreements ( $time\_lag$ ) within a specific industry. The variable  $time\_lag$  is denoted in days. The first time lag is the lag between the date of the first cooperative agreement, occurred in the industry, to the date of the beginning of the observation period (January 1<sup>st</sup>, 2010), the second time lag is between the date of the second cooperative agreement happened in the industry to the first's, and so on.

The number of cooperative agreements in the industry ( $ncoind$ ) is a counter-like variable. The first cooperative agreement happened in the industry in the observation period does not have a predecessor, the second cooperative agreement has only one cooperative agreements occurred prior to it, and so on (since the analysis at the industry-level includes five industries, the analysis deals with five series of datasets of  $ncoind$  variable and  $time\_lag$  variable).

Our model examines the effects of firm-, inter-firm and industry-level drivers on the likelihood to enter a cooperative agreement. The analyses derived from Cox proportional hazards regressions models (Cox, 1972) of the following form:

$$h_i(t) = h_0(t) \times \exp\left(\sum \beta_k \times [X_i(t)]\right),$$

where  $h_0(t)$  is the baseline hazard function and  $X_{ik}(t)$  is the value of the  $i^{th}$  covariate (independent variable) where  $i = 1, 2, 3, 4,$  and  $5$  consecutively referred to variable of `ncbpre`, `cd_p`, `nfco`, `ncoind`, and `time_lag` and  $\beta_i$  is the exponential regression coefficient for the  $i^{th}$  covariate. A key benefit of the Cox model is that no assumptions are made as to the distribution of the baseline hazard function. For examples of management research using the Cox approach, see Katila and Shane (2006) and Yu & Cannella (2007).

In our data set, the failure event (in event history terminology) was the occurrence of the first cooperative agreement for a firm. Starting on the date of January 1<sup>st</sup>, 2010 we noted the number of days that elapsed until the first cooperative agreement (in each industry) was entered by a firm. If the observation period ended before the first cooperative agreement occurred, the observation was right-censored at December 31<sup>st</sup>, 2019. We used STATA 10.0 to estimate our model.

## RESULTS

Table 2 resumes the descriptive statistics of research variables. Since the analyses at all levels examine the relationship between the dependent variable (cooperation) and the covariates using univariate models, we do not test the correlations neither perform the multi-collinearity between variables.

| variable and covariates           | mean    | standard deviation |
|-----------------------------------|---------|--------------------|
| Dependent variable: cooperation   | 0.88    | 0.01               |
| Time variable: duration           | 2190.25 | 31.49              |
| Firm-level                        |         |                    |
| Covariate : <code>ncbpre</code>   | 0.02    | 0.00               |
| Covariate : <code>cd_p</code>     | 0.28    | 0.02               |
| Inter-Firm Level                  |         |                    |
| Covariate : <code>nfco</code>     | -4.11   | 0.05               |
| Industry-Level                    |         |                    |
| Covariate : <code>time_lag</code> |         |                    |
| Car Industry                      | 35.35a  | 3.62               |
| Airline Industry                  | 36.05a  | 3.44               |
| Telephone Industry                | 55.27b  | 4.18               |
| Banking Industry                  | 57.62b  | 4.51               |
| Software Industry                 | 24.96a  | 2.85               |
| Covariate: <code>ncoind</code>    |         |                    |
| Car Industry                      | 105.62a | 7.35               |
| Airline Industry                  | 138.42b | 6.98               |
| Telephone Industry                | 102.96a | 8.47               |
| Banking Industry                  | 88.00a  | 9.15               |
| Software Industry                 | 263.26c | 5.78               |

Table 2. Descriptive Statistics

Means sharing a letter in the group label are not significantly different at the 5% level. For industry covariates, the descriptions are chained with Duncan's homogenous subsets that represent the comparison of the values of `time_lag` and `ncoind`. The homogeneity tests of `time_lag` lead to two

ranks of values. Software, airlines and car industry share the same value of mean of time\_lag and in the shortest time\_lag value group, while, telephone and banking are proven to be a group with the longer time lag, For the variable of ncoind, the order of the value from the lowest to the highest is: (1) banking, (2) telephone, (3) car, (4) airlines, and (5) software industry. In term of the mean of ncoind, banking, telephone and car industry are in the same group with the lowest ncoind, where airlines in the middle group and software in the highest mean group.

#### *Survival and Hazard Functions at the Firm Level*

Through survival function, the probability of objects to survive over the observation period is delineated. In this research, objects that survive longer than the observation period represent the JV that could not be considered as cooperative JV. Kaplan-Meier survival functions including all industries (Figure 1) has a downward slope. This tendency prevails that the number of JV that are not regarded as cooperative decreases over time during the observation period.

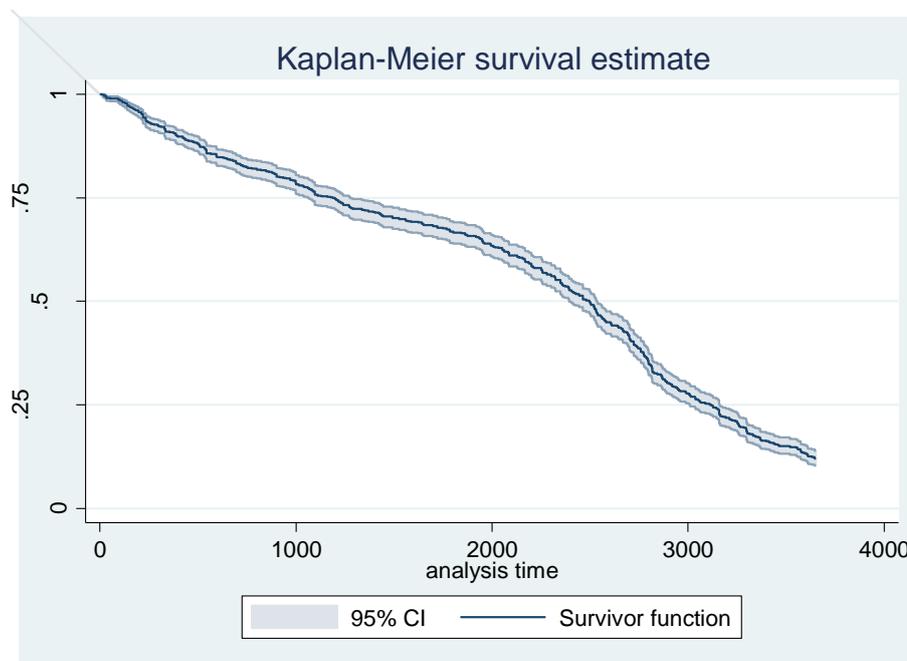


Figure 1. *Kaplan-Meier survival function, all industries, January 1<sup>st</sup>, 2010 – December 31<sup>st</sup>, 2019*

Hazard function is the derivative of the survivor function over time and does not display density or a probability. However, it can be regarded as the probability of failure in an infinitely small time period between  $t$  and  $t + \Delta t$  given that the subject has survived up till time  $t$ . In this sense, the hazard is a measure of risk: the greater the hazard between times  $t_1$  and  $t_2$ , the greater the risk of failure in this time interval. Figure 2 and Figure 3 show hazard function for all industries. Respectively, Figure 2 and Figure 3 displays the Kaplan-Meier hazard function and Nelson -Aalen cumulative hazard function. Both functions have upward slope, showing that the hazard, i.e. the cooperation increases over time during the observation period.

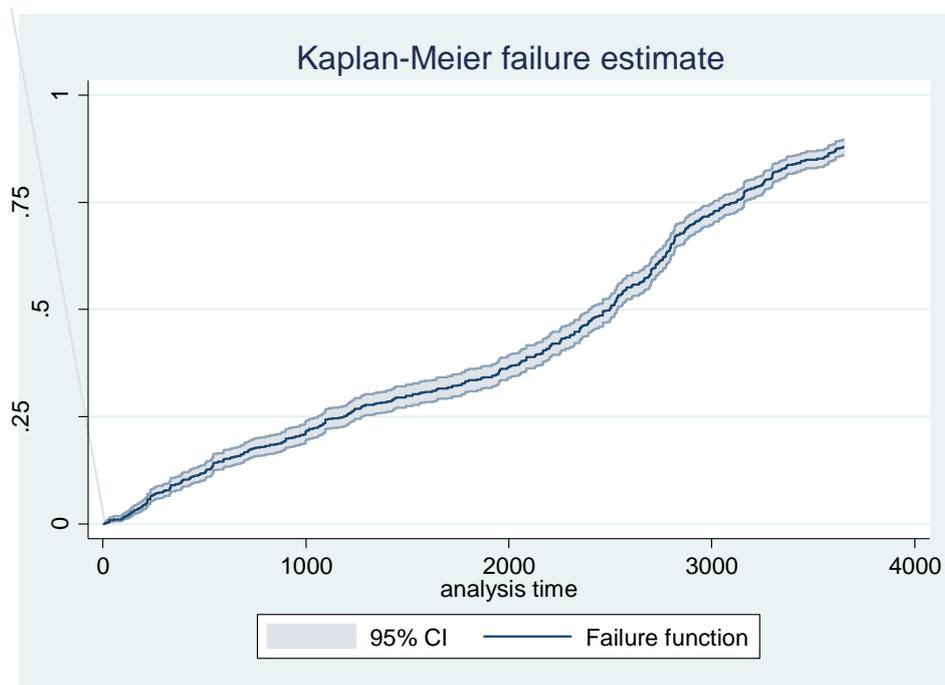


Figure 2. Kaplan-Meier hazard function, all industries, January 1<sup>st</sup>, 2010 – December 31<sup>st</sup>, 2019

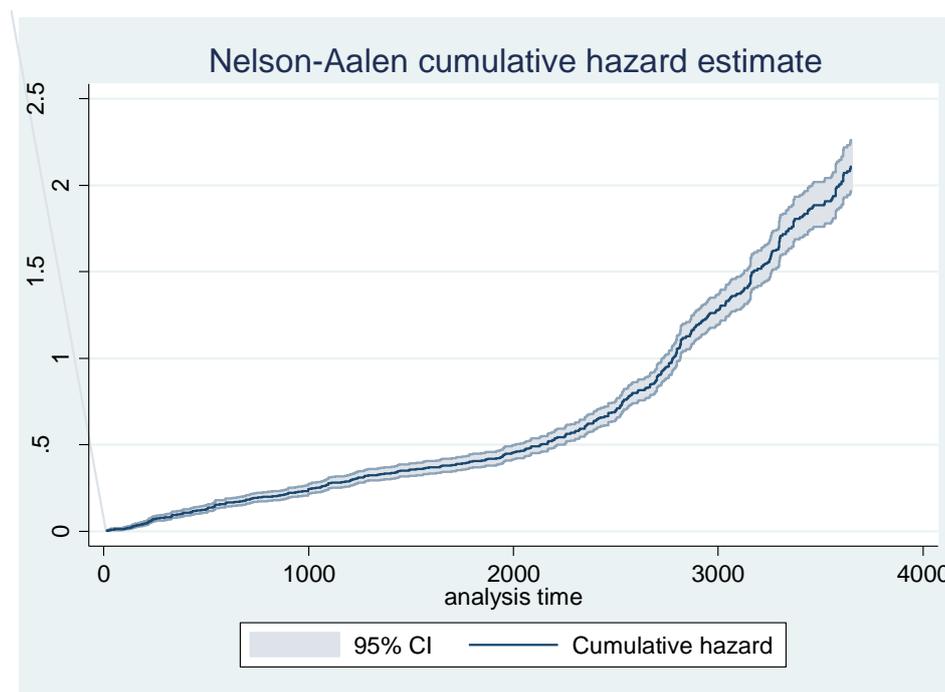


Figure 3. Nelson -Aalen cumulative hazard function, all industries, January 1<sup>st</sup>, 2010 – December 31<sup>st</sup>, 2019

*Survival and Hazard Functions at the Industry Level*

The slope direction of the survival and cumulative hazard functions of each industry involved shares the similarity with those of the overall survival and cumulative hazard functions. Figure 4 displays the baseline survival function for each industry included in the analysis. The downward slope of the survival function of each industry indicates that during the observation period, number of agreements

that could not be categorized as cooperative in each industry decreases overtime. Figure 5 displays the baseline hazard function in the five industries.

The direction of the functions' slope shows the hazard function as the inversion of survival functions. As the cumulative hazard functions for overall industries, the hazard functions of each industry also possess the upward slopes, which indicate that the occurrence of competition increases over time.

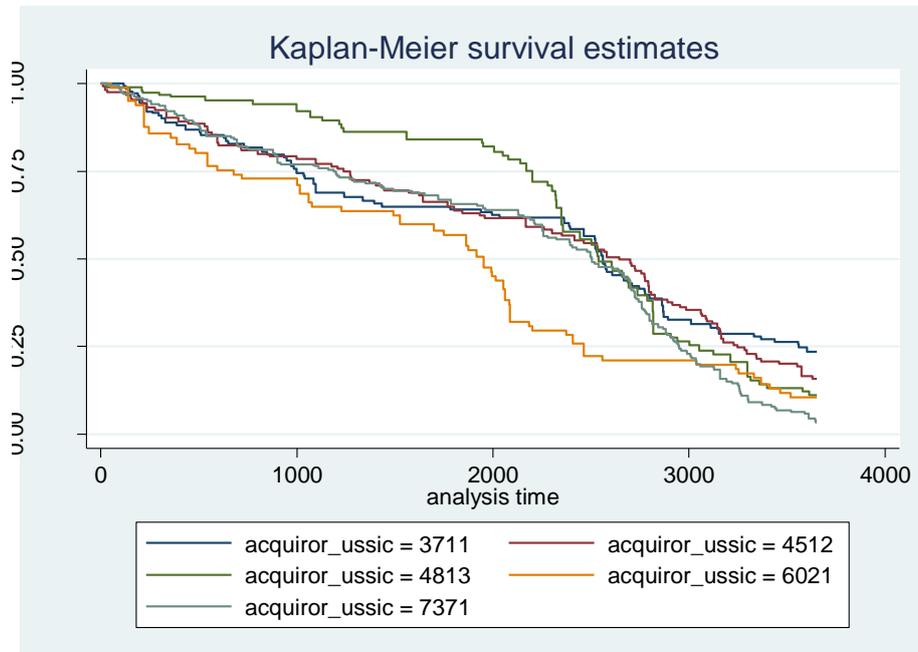


Figure 4. *Kaplan-Meier survival function, the five industries, January 1<sup>st</sup>, 2010 – December 31<sup>st</sup>, 2019*

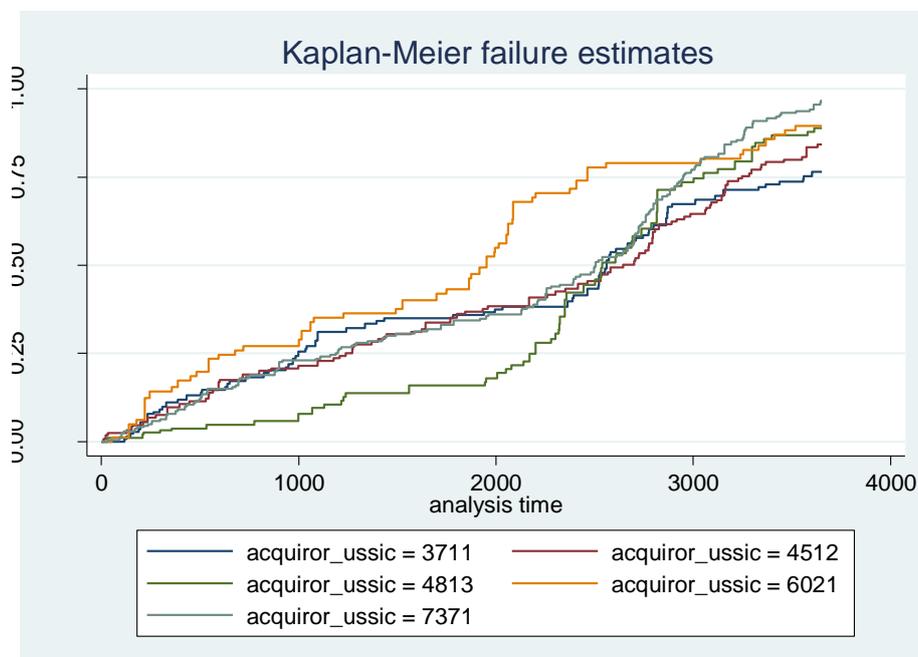


Figure 5. *Kaplan-Meier hazard function, the five industries, January 1<sup>st</sup>, 2010 – December 31<sup>st</sup>, 2019*

Log-rank test (Table 3) followed by paired equality tests (Table 4) are used to justify whether the differences of the survival/hazard functions between industries are significantly different. The null

hypothesis for the equality of survivor functions ( $H_0$ ) is all functions are significantly the same, while the alternative hypothesis ( $H_1$ ) is at least one function is not significantly the same. The  $P > \chi^2 = 0.000$  of the result (Table 3) leads to rejection of  $H_0$  and accept the  $H_1$ , at least one industry has a significant different survival function compare to the others at the 5% level of significance.

| USSIC              | Events observed | Events expected |
|--------------------|-----------------|-----------------|
| 1 3711 (car)       | 192             | 244.33          |
| 2 4512 (airlines)  | 235             | 268.98          |
| 3 4813 (telephone) | 168             | 180.38          |
| 4 6021 (banking)   | 145             | 106.54          |
| 5 7371 (software)  | 393             | 332.77          |
| Total              | 1133            | 1133            |
|                    | chi2            | 41.82           |
|                    | P> chi2         | 0.0000          |

Table 3. *Log-rank test for equality of survivor functions*

The results of paired equality tests (Table 4) indicate that the survival functions of car, airlines and telephone industry are significantly equal, while banking and software industry share the equality of their survival functions.

| USSIC   | chi2  | P>chi2 | Note      |
|---|-------|--------|-----------|
| 3711 (car) × 4512(airlines)                     | 1.04  | 0.3077 | equal     |
| 3711 (car) × 4813 (telephone)                   | 2.18  | 0.1400 | equal     |
| 3711 (car) × 6021 (banking)                     | 20.38 | 0.0000 | not equal |
| 3711( car) × 7371 (software)                    | 22.97 | 0.0000 | not equal |
| 3711 (car) × 4512 (airlines) × 4813 (telephone) | 2.37  | 0.3051 | equal     |
| 6021 (banking) × 7371 (software)                | 1.21  | 0.2705 | equal     |

Table 4. *Summary of paired equality test of survivor functions between Industries*

#### *Hypothesis Testing*

Examinations on the models report that mostly the relationships between the occurrence of cooperative agreement (cooperation proliferation) and the covariates are significant (Table 5) at 5% of significance level. The significance of the relationships is proven by the value of  $P$  (or Probability)  $> \chi^2$  (less than 0.05) which comes in conjunction with LR  $\chi^2$ . Even though these relationships are significant, the values of their  $R^2$  are relatively low. Most research omits the  $R^2$  and only utilize the LR  $\chi^2$  to test the significance of the relationships in the model.

| Covariates        | Log likelihood | LR chi2 | P> chi2 | Hazard Ratio | Std Err | Coo. Likelihood | R2 (%) | z     | P > z  | Notes           |
|-------------------|----------------|---------|---------|--------------|---------|-----------------|--------|-------|--------|-----------------|
| <b>Firm</b>       |                |         |         |              |         |                 |        |       |        |                 |
| ncbpre            | -7309.06       | 6.80    | 0.0091  | 1.6561       | 0.2806  | 0.6561          | 0.36%  | 2.98  | 0.0030 |                 |
| cd_p              | -7310.45       | 4.02    | 0.0449  | 0.9029       | 0.0471  | -0.0971         | 0.22%  | -1.96 | 0.0500 |                 |
| <b>Inter-Firm</b> |                |         |         |              |         |                 |        |       |        |                 |
| nfco              | -7306.76       | 11.41   | 0.0007  | 1.0536       | 0.0157  | 0.0536          | 5.36%  | 3.52  | 0.0000 |                 |
| <b>Industry</b>   |                |         |         |              |         |                 |        |       |        |                 |
| <b>time_lag</b>   |                |         |         |              |         |                 |        |       |        |                 |
| car               | -826.15        | 260.66  | 0.0000  | 0.9979       | 0.0007  | -0.0021         | 63.70% | -3.11 | 0.0020 |                 |
| airlines          | -1061.51       | 221.59  | 0.0000  | 0.9984       | 0.0003  | -0.0016         | 48.79% | -4.83 | 0.0000 |                 |
| telephone         | -1960.02       | 114.92  | 0.0000  | 0.9986       | 0.0004  | -0.0014         | 22.17% | -3.07 | 0.0000 |                 |
| banking           | -585.82        | 98.20   | 0.0000  | 0.9984       | 0.0005  | -0.0016         | 37.06% | -3.22 | 0.0010 |                 |
| software          | -1967.32       | 107.80  | 0.0000  | 0.9986       | 0.0004  | -0.0014         | 16.10% | -3.55 | 0.0000 |                 |
| <b>ncoind</b>     |                |         |         |              |         |                 |        |       |        |                 |
| Car               | -947.89        | 17.18   | 0.0000  | 1.0029       | 0.0007  | 0.0029          | 0.29%  | 4.11  | 0.0000 |                 |
| airlines          | -1171.05       | 2.51    | 0.1134  | 1.0009       | 0.0006  | 0.0009          | 0.65%  | 0.12  | 0.1150 | not significant |
| telephone         | -763.31        | 0.34    | 0.5592  | 0.9986       | 0.0004  | -0.0014         | 0.12%  | -0.59 | 0.5580 | not significant |
| banking           | -634.43        | 0.99    | 0.3202  | 0.9984       | 0.0012  | -0.0016         | 0.41%  | -1.00 | 0.3180 | not significant |
| software          | -1977.37       | 87.70   | 0.0000  | 1.0024       | 0.0003  | 0.0024          | 13.19% | 3.65  | 0.0000 |                 |

Table 5. *Hypothesis Testing*

At the firm level analysis, the relationships between the occurrence of coopetition and the number of prior collaborative agreements (ncbpre) (H1) and between the cultural distance of parent firms (cd\_p) (H2) are significant. The strength of variable of number of prior collaborative agreement (ncbpre) to explain the likelihood of the occurrence of coopetition is only 0.36%. Cultural distance of parent firms (cd\_p) only puts influence at 0.22% on the likelihood of the occurrence of coopetition. In terms of cultural distance of parent firms (cd\_p), Chinese firms are the most determined to choose Chinese partners in coopetitive agreements (Table 6). Out of 673 Chinese firms, 643 establish coopetition with their fellow Chinese firms (indicated by the cd\_p = 0). The mean and std deviation for cd\_p respectively are 0.28 and 0.61. Default value for the variable is 0, meaning no difference in cultural distance.

| Country               | censored |        |       | uncensored |        |       |
|-----------------------|----------|--------|-------|------------|--------|-------|
|                       | cd_p=0   | cd_p>0 | total | cd_p=0     | cd_p>0 | total |
| China                 | 18       | 9      | 27    | 643        | 30     | 673   |
| Japan                 | 4        | 5      | 9     | 39         | 34     | 73    |
| US                    | 4        | 5      | 9     | 13         | 20     | 33    |
| Others (78 countries) | 66       | 44     | 110   | 240        | 114    | 354   |
|                       | total    |        | 155   | total      |        | 1133  |

Table 6. *Cultural Distance*

The value of hazard ratio in the relationships of  $ncbpre \times cooperation$  is 1.6561 and the direction of the relationship is positive which also justified by the positive values of  $z$ . The result denotes that a unit increase in number of collaborative agreement prior to the first cooperation is significantly associated with a 65.61% increase of the possibility of the occurrence of cooperation. This result supports H1: the greater a competitor's experience in collaborative agreements, the higher the chance to enter a cooperative agreement.

As for the relation between cultural difference  $cd\_p$  and the existence of cooperation, the hazard ratio value is 0.9029. This value signifies the negative direction in the relationship. A unit increase in  $cd\_p$  may lead to a 9.71% increase of the likelihood of the occurrence of cooperation. Cooperation is more likely to occur when the partners come from culturally similar countries (H2).

Analysis at inter-firm level in which the variable of number of competitors involved in cooperation ( $nfco$ ) is examined lead to the acceptance of Hypothesis 3. The relationships of  $nfco \times cooperation$  is proven significant, with  $R^2 = 0.61\%$  and Hazard Ratio = 1.0536. That is, a unit increase in number of competitors involved in cooperation leads only to 5.36% increase of the likelihood of the occurrence of cooperation.

At the industry level, the relationships between the occurrence of cooperative agreements and the time lag between two consecutive agreements in all industries (H4) are indicated significant. The direction of  $time\_lag \times cooperation$  association in all industries is uniformly detected significant and negative. The significant relationships are in accordance with moderate values of  $R^2$ . Consecutively, the degree of  $time\_lag$  variable in explaining the proliferation of cooperation in car, airlines, telephone, banking and software industries are 63.70%, 48.79%, 22.17%, 37.06%, and 16.10%. All the values of the hazard ratio in all relationships are negative. A day increase of  $time\_lag$  covariates may affect a 0.14 to 0.21% decrease of the likelihood of the occurrence of cooperation.

Finally, concerning the relationships between the proliferation of cooperation and the total number of cooperative agreements in the industry (H5), only in the car and software industries the  $ncoid$  covariate is proven to have significant influence. In the other industries,  $ncoid$  does not affect the occurrence of cooperation. In the significant relationships, the direction of the relationships is proven to be positive. The hazard ratios both in the significant and non-significant relationships are slightly above or under 1. The values of  $R^2$  in the models in which the number of total cooperative agreements in the industry is associated with the occurrence of cooperation are less than 0.5% except in software with  $R^2 = 13.19\%$ .

## DISCUSSION

Our study examined the effect of specific antecedents, at firm-, inter-firm, and industry-level, on the

occurrence and proliferation of cooptation. By testing some hypothesis, derived from a multi-level framework, through an Event History Analysis, our study contributed to the literature on cooptation by identifying some drivers, at firm, inter-firm and industry-level, that explain the proliferation of cooptation. The drivers of cooptative agreements that we taken into account are: a) at the firm level: the competitors' experience into collaborative agreements, and the competitors' cultural distance; b) at the inter-firm level: the number of competitors already involved in cooptative agreements; c) at the industry level: the lag between two consecutive cooptative agreements in the industry, and the total number of inter-competitor agreements in the industry.

The results suggest that firms' experience in cooperation (H1) and the cultural similarity among competitors (H2), predict whether a firm will enter a cooptative agreement. Moreover, the total number of competitors already involved in cooptative agreements (H3) has a low positive effect on the chance of a firm to cooptate.

Finally, the speed of agreements among competitors (H4) and the total number of cooptative agreements in the industry (H5) (only in the car and software industries) are positively related to the chance of a firm to enter a cooptative agreement itself.

In general, these results support the idea that cooptation, at firm-level, is a consequence of the availability of trustworthy competitors (Kogut, 1991) belonging to similar cultural contexts, while at the inter-firm and industry-level, is an outcome of competitive and cooperative moves undertaken by competitors in a logic of competitive or hyper-competitive dynamics (D'Aveni, 1994; Chen, 1996; Chung, 1999; Gimeno, 2004; Wiggins & Ruefli, 2005).

The theoretical contributions of this research are manifold. First, we contribute to cooptation literature by studying some drivers that have been so far underestimated in the literature. The knowledge of factors that explain why cooptation occurs and proliferates in an industry is helpful for a more in depth theoretical development and a more detailed empirical progress of the literature. Moreover, we make a contribution to the literature on inter-firm rivalry, by introducing cooptative behaviours within the range of strategic option for rivals' actions and reactions.

In addition to theoretical, also empirical implications for practitioners emerge from our study. It clarifies the relationship between the logic of competitive dynamics with the one concerning cooptation. While managers take into account strategic moves against competitors, according to our investigation, it is valuable to consider cooptative actions, especially when other competitors are involved in cooptation. Moreover, the knowledge of drivers at the firm-, inter-firm, and industry-level affecting cooptation is helpful to identify the weak or strong signals that show the rise and proliferation of cooptation in the industry.

## LIMITATIONS AND FUTURE DIRECTIONS

The main objective of this study was to uncover several drivers of co-competition at different level of analysis. The results provide support to all hypothesis proposed, suggesting the significant impact of firm, inter-firm and industry level drivers on the proliferation of co-competition. However, the study has some limitations. First, we identified and tested specific drivers of co-competition as a result of our literature review and data accessibility. For this reason, the results may have omitted some drivers able to further explaining the proliferation of co-competition. Second, our findings are based on five industries over a specific ten-year period. Consequently, the results may reflect some factors specific to those industries or period under study. A new study could analyse other different industries and/or a different time period. Third, we used a sample of cooperative JV but co-competition can occur also through other forms of collaborative agreements, which could be related to others drivers.

To conclude, this study, built on TCE and competitive dynamics perspectives, examined drivers of co-competition and linked them to firms' actions and strategic behaviours. Because other studies have shown that actions and reactions matter to performance (Chen & Hambrick, 1995; Chen, 1996), our results are a first step in the process of linking co-competition to firm performance.

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# ORGANIZATIONAL SOCIAL MEDIA IN PRACTICE - INVESTIGATING THE EMERGENCE OF NEW WORK PRACTICES AND ORGANIZATIONAL STRUCTURES

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## ABSTRACT

In this paper, the general use of multiple social media in organizations is investigated. As social media are increasingly adopted by organizations, there is a demand to understand how they are being incorporated in organizational settings. In the past decade a broad stream of research has studied how organizations use specific social media platforms. There is a lack of research, however, that focuses on more general, multiple use of organizational social media over time that includes social media use for both internal and external purposes, and what implications that use has on work practices and organizational structures. Hence, the aim of this paper is to study the organizational use of multiple social media in terms of what new work practices and organizational structures emerge and change over time. For this purpose, Orlikowski's "practice lens" has been used to analyze the introduction and ongoing use of social media in a hotel chain over a period of seven years. The main contribution of the paper is providing a means to explain the new work practices and organizational structures related to organizational work that arise due to the use of multiple organizational social media

*Keywords: organizational social media, multiple social media, work practice, organizational structure, routines, case study*

## INTRODUCTION

The use of social media has in many ways transformed organizations (Aral, 2013) and their business activities and become a part of many workplace activities (Leonardi and Vaast, 2017). Compared to other information technologies (IT) used in organizations, social media are flexible in use, ranging for example from internal communication to external communication and marketing. Social media do not serve an obvious purpose in workplaces (Kruse and Baumöl, 2016) either, compared with CRM systems or other administrative IT systems that are designed to make work practices more effective (Huang et al., 2015; Kapoor et al., 2018). The usefulness and organizational value of social media depend on how the user makes sense of it, or interprets its usefulness. Recent research suggests that

the use of social media in organizations calls for major changes in work routines and organizational structures (Forsgren and Byström, 2018). Furthermore, social media is suggested to “represent one of the most transformative impacts of information technology on business, both within and outside firm boundaries” (Aral et al., 2013, p. 3). Previous research on social media in organizations reveals that early studies often focused on the introduction of individual tools within an organization such as a blog or social network like Facebook. Furthermore, these studies focused on novel technical features and their usage and therefore little attention was given to their development and long-term usage in a work context (Leonardi et al., 2013; Leonardi and Vaast, 2017). In agreement, Van Osch and Coursaris (2013) point out that research in the area of social media has “largely ignored the more general use of social media by and within organizations” (p. 703). Consequently, there is need for research that focuses on a more general use of multiple organizational social media with a wider ecological approach to social media use both for internal and external purposes and its implications on organizational practices (cf. Van Osch and Coursaris, 2013; Schlagwein and Hu, 2018; Nicoli and Papadopoulou, 2017). In the present study, the definition of organizational social media suggested by Van Osch and Coursaris (2013, p 54) is used. They define organizational social media (OSM) as “technology artefacts, both material and virtual, that support various intra- and extra-organizational actors—including management, employees and external stakeholders.” Organizational social media are expected to bring both strategic and economic benefits for organizations (cf. Benthous et al., 2016; Kane, 2015; Leonardi et al., 2013). However, there is little research focusing on how multiple organizational social media are integrated and used in work practices over time (Forsgren and Byström, 2018; Kapoor et al., 2018). Earlier studies tend to approach social media from a fragmented, instrumental perspective, overlooking the impact on organizing and understanding of the work practices. Researchers (cf. Aral et al., 2013; Schlagwein and Hu, 2018) have been critical towards this fragmented perspective, focusing solely on the individual social media perspective. Arguably, there is a need for more theoretical and empirical understanding on how organizational social media will disturb work practices and the structure of the organization. Hence it is motivated to further develop both our empirical and theoretical understanding of how multiple organizational social media are integrated into work practices and what consequences this has on organizational processes, structures and routines (cf. Leonardi and Vaast, 2017). The present paper aims to address the above described research gap and provide empirical understanding by studying the organizational use of social media in terms of what new work practices and organizational structures emerge and change over time. Orlikowski’s “practice lens” (2000) will be used to analyze an international hotel chain’s introduction and ongoing use of social media during seven years, as it “allows us to see what, when, where, how, and why different groups enact different structures (technologies-in-practice) through their recurrent

interaction with a particular set of technological properties in similar and different contexts at the same time and over time" (p. 420). The theory also seems suitable since it focuses the users and their work practices, rather than on the technology and its attributes. Hence, the paper seeks an answer to the following question: *How are organizational work practices and organizational structures challenged by the use of multiple organizational social media use over time?* In order to achieve the aim and research question, the present paper is based on a longitudinal qualitative case study of an international hotel chain that uses organizational social media. The hotel chain was chosen because it was a late adopter of organizational social media, not introducing it until 2013, and because there was an opportunity to follow the use over time (2013-2020). The paper contributes theoretically by analyzing and explaining the new work practices and organizational structures related to organizational work that emerge over time due to the use of multiple organizational social media. The remainder of the paper begins by presenting earlier research related to organizational social media. This is followed by a description of the theoretical framework, i.e., the practice lens. In the next section, the research methods are explained. Thereafter findings and analysis of the organizational social media are presented, followed by conclusions.

## RELATED RESEARCH

The term "social media" refers to technology artefacts that support various actors in a multiplicity of communication activities for producing user-generated content, developing and maintaining connections and social relationships, or enabling other computer-mediated interactions and collaborations (Kaplan and Haenlein, 2010). Research uses multiple terms when referring to social media used in organizations, including public social media, enterprise social media, enterprise social software, and corporate social software (Leonardi and Vaast, 2017). Public social media such as Facebook and Twitter are often used by organizations for marketing purposes and to create relationships with customers while enterprise social media are used for internal communications or internal knowledge exchange (Leonardi, et al, 2013). Initially, research on social media in organizational contexts concentrated on external social media use (often referred to as public social media), that is, social media used to communicate with e.g. customers or stakeholders outside the organization (Mangold and Faulds, 2009). Furthermore, a broad stream of research has focused on social media marketing (SMM), i.e., marketing activities conducted by organizations through social media platforms (Minazzi, 2015). Studies focusing on organizational use of social media for external purposes are less common in the Information Systems (IS) research field (Van Osch and Coursaris, 2013; Högberg, 2018). Some studies have focused on social media use for stakeholder engagement (e.g. Lu et al., 2015; Zhang et al., 2016). Another broad stream of research has focused on user-generated

content (UGC) and word of mouth enabled by social media and how it can be used by customers to share information about organizations and their products and services (e.g. Benthaus et al., 2016). There has been a shift in focus towards social media used for internal communication and knowledge sharing, often referred to as enterprise social media (ESM) (Leonardi and Treem, 2013). Agerdal-Hjermind (2014) stressed the multifaceted nature of enterprise blogging within a government office. Oostervink et al. (2016) studied how the features of social media caused uncertainty in how to use them as communication systems. Their study illustrates that employees were torn between the logic of the organization and the logic of the profession. The research described above focuses on specific social media use, that is, a single type of technology within one organization. However, more recent research has focused more on multiple social media use. This research has highlighted social media's role e.g. in changing communication patterns or potential conflicts. Benthaus et al. (2016) argue that digitalized word of mouth and user-generated content (UGC) have resulted in extensive sharing of information among consumers about firms' products and services. Dong and Wu's (2013) study is on how firms can use social media technologies for open innovation by crowdsourcing ideas about new products and services.

## **THEORETICAL FRAMEWORK: TECHNOLOGY AND PRACTICE**

In the present study, the "technology-in-practice" perspective (Orlikowski, 2000) or "practice lens" is used to study technology use in organizations. It focuses on "emergent technology structures enacted in practice rather than embodied structures fixed in technologies" (p. 408). Orlikowski (2000) suggests that by seeing the usage of technology as a process of enactment, one can develop a deeper understanding of "the constitutive role of social practices in the ongoing use and change of technology in the workplace" (p. 404). That is, by studying how structures develop through the lens of "technology-in-use" it is possible to see how structures are avoided or reconstructed, and how new structures arise in the context in which the technology is used. The practice lens was proposed by Orlikowski (2000) to both complement and challenge previous structuration models of technology use (e.g., Orlikowski, 1992) by viewing technology as not stable but constantly re-negotiated by its user. According to Orlikowski, the use of technology is what individuals do with a technological artefact in their repeated, situated practices such as work practices. Hence, the use of technology includes "a repeatedly experienced, personally ordered and edited version of the technological artefact, being experienced differently by different individuals and differently by the same individuals depending on the time or circumstance. In this aspect, it may be termed a *technology-in-practice*, to refer to the specific structure routinely enacted as we use the specific machine, technique, appliance, device, or gadget in recurrent ways in our everyday situated activities" (pp. 408–9). Orlikowski's practice lens also

separates the use of technology and the features of the technology. Practices are people's everyday activities, which are shaped by structures and likewise shape the structures (Feldman and Orlikowski, 2011). Using a practice lens does not need to restrict the analysis to a macro or a micro level, or to a merger of the two. Instead it "directs attention to how institutional phenomena are constituted in everyday activities, and how those everyday activities, in turn, are shaped by institutional influences and entailments" (Orlikowski and Scott, 2015, p. 6). Hence, using a practice lens means the attention is pointed towards repeated situated activities (Cetina et al., 2005), and by understanding everyday practices of organizational social media creates a possibility to understand how organizational structures, routines and practices are affected. This notion is especially interesting when studying social media since, as noted above, these were not originally designed to be used in an organizational setting and consist of constantly developing and changeable algorithms to which the user must adapt.

## RESEARCH METHOD

To observe and understand how the hotel chain used organizational social media over time, an in-depth case study research design was used (Yin, 2003). Given the interest in the relationship between changes in work practices and organizational structure due to organizational social media use, the case of the international hotel chain was chosen since it reflected the introduction and ongoing use of organizational social media. The studied hotels all belong to the same hotel chain and are located in eight European countries. An interpretive research approach was followed, which is particularly appropriate for understanding human practice in organizational contexts (Klein and Myers, 1999). Furthermore, this approach allowed an examination of the relationship between work practices, organizational structures and the use of multiple organizational social media in an organizational context (Walsham, 1995). The case study is longitudinal as data was collected over a period of seven years (2013-2020) within the international hotel chain. There are several ways of studying organizational practices qualitatively. In the present paper, a combination of multiple qualitative data collection methods has been used, with empirical data obtained through interviews, field visits, observation and organizational documents. Hence, the data collection resulted in rich and multifaceted data, and this paper and its analysis focuses mainly on data from semi-structured interviews (cf. Walsham, 1995) concerned with the practical use of organizational social media. The respondents were all employed at the hotel chain and had positions and responsibilities in different positions such as social media managers, e-commerce managers and marketing managers at the different hotels within the chain. They were all involved in the social media use. Interviews were mainly conducted face-to-face at different hotels and the head office, with one exception of using videoconferencing on five occasions. In total, 41 semi-structured interviews were conducted with 58

employees from 15 hotel organizations. The interviews lasted about 60 minutes and all interviews were recorded and transcribed verbatim. The initial interviews were conducted during 2013-2014 about the respondents' practical use of social media at each hotel, and how social media related to other work tasks, organizational structures and routines. The interviews were semi-structured and the respondents were asked open-ended questions that involved themes such as the ways they worked with and used organizational social media technology, and their work practices. Questions like "Can you describe how you use social media?" and "How has the use of social media changed your work routines?" were asked. Furthermore, the respondents were asked to reflect upon how the social media strategies and use have changed the organizational structure. In order to understand the ecology of the organizational use, questions concerned what specific social media platforms were used, and how their use affected the organization and work tasks. These questions were asked in order to understand how social media was actually used in the studied organizations, which is technology-in-use (Orlikowski, 2000). Furthermore, the interviews remained open for interesting topics that emerged during the interviews from additional dialogue with the interviewees. Also, notes were taken based on indirect participant observations and interactions that took place during the study. During the following years (2015-2019), 16 follow-up interviews were conducted as well as interviews with new organizational members in new positions such as social media content manager and regional social media manager. The follow-up interviews focused on questions like: "Can you describe how you work with social media today and what changes you have made?"

By regularly conducting interviews and making observations at the studied hotels, important insights were made, e.g. how the hotel chain changed its management of social media and organizational structure and what implications this had for the hotel organizations. Used in combination with interviews, the observations made it possible to capture not only what the respondents were saying, but also how they actually used social media in practice in the studied context. Similarly, data was collected from "netnography" observation (Kozinetz, 2010) of the hotels' activities in social media platforms, e.g. Facebook, Instagram and Twitter. These online observations offered further insights into the practice of social media and provided insights on what type of content was published and how the hotels interacted with customers. Therefore, the perspective of organizational social media (Van Osch and Coursaris, 2013) was used when doing the online observations, that is, observations were made both in platforms managed by the hotels themselves, e.g. Facebook, but also in third-party platforms such as TripAdvisor. Furthermore, written documents such as social media guidelines and policies were a source of empirical data. By using multiple data sources selected during a longitudinal period for studying the same phenomenon (Yin, 2003) the validity of the study was improved.

## ANALYSIS

The analysis followed an iterative procedure, that is, by going back and forth in the data, patterns and explanations related to the practices of organizational social media could be identified (Miles and Huberman, 1994). Based on the research aim and theoretical framework (practice lens), a basic set of initial codes was used. The empirical data analysis was guided by a set of concepts from Orlikowski's (2000) "practice lens." Concepts such as "facilities," "norms" and "interpretive schemes" were used (see Table 1). The first step in the analysis was to read the transcripts to develop an understanding of the actual use (technology-in-use) of social media at the hotels. In order to understand the emergence of new organizational structures and changes over time, a timeline was made. The development of new organizational structures, norms, hierarchies and new organizational roles such as regional social media managers could thus be identified and tracked in time. By going back and forth through the data, an understanding of the data was created, using open coding processes (Cole and Avison, 2007). Throughout the process of analyzing the empirical data, the emergence of new work practices and organizational structures was found, which was summarized in three categories: 1) Flexible new work practices; 2) contradictions and incongruencies; and 3) emergence of new organizational structures and hierarchies, which will be further developed in the following section.

| Theoretical Concepts   | Empirical data – technology-in-practice   | Data sources   |
|------------------------|---|--|
| "facilities"           | Social media platforms used, supportive IT, e.g. Google analytics and software  | Interviews, workplace observations, online observations, written documents |
| "norms"                | Descriptions of social media use, e.g. organizational routines, and descriptions of "dos and don'ts" in policies and strategies | Interviews, workplace observations, online observations, written documents |
| "interpretive schemes" | Assumptions, expectations and feelings  | Interviews   |

Table 1 – Overview of theoretical concepts and data

## FINDINGS AND ANALYSIS

### *Flexible New Work Practices*

When the hotel chain management took the decision to start using organizational social media, this included using social media at both a brand level and at individual hotels within the hotel chain. On a hotel chain level a social media manager was implemented to be in charge of policies and strategies and communicate with local hotels. The social media manager was in charge of social media activities on a brand level, but also in charge of the implementation and training at the local hotels within the chain. Furthermore, an e-commerce manager was implemented offering training in social media

activities and connecting these with the hotels' online sales activities. The local hotels had the mandate to choose one employee to be responsible for social media use. In most cases, the marketing or sales manager was chosen. Hence, new work practices related to social media use emerged from the very start of the implementation process. Furthermore, new organizational structures developed as new managers with new responsibilities were implemented. The interview with the employees at each hotel reveals that a number of work tasks emerged from the decision to start using social media that were related to return on investment, data analytics, advertising and customer relationship management. The employees in charge of social media at each hotel were involved with various activities related to social media ranging from online booking to posting pictures and answering online reviews. Hence the implementation of social media platforms affected the new functions of the categories "social" as in interaction with customers and service encounters, but also "content," as in pictures and messages produced to be published on the social media platforms. Both of these categories of work tasks created new work roles. Both categories also created a heavy work load for the employees in charge of social media. They describe that it was hard to "come up with" new ideas for what to publish and what audience to approach. Furthermore, use of multiple forms of organizational social media (Van Osch and Coursaris, 2013), such as Twitter, Instagram and Facebook, created the need to be present and interactive in the social media platforms, which quickly became a burden for the employees. However, the employees describe that it was the social media content coming from stakeholders and guests that created the heaviest workload for them. The massive amount of online reviews from guests needed to be managed and answered quickly. However, the work tasks that emerged from the guests' use of social media caused a need for new knowledge and expertise, that is, how to respond to guests and handle complaints online. Similarly, guests used social media platforms for service encounters creating a new digital service arena, which created a need for flexible digital presence. One of the employees, Emma, a marketing manager says about the workload:

It is a never-ending story, I mean you are never on top of it and the comments and reviews keep coming. And I want to give good service to our guests but I haven't got more time to do this and that's why I sometimes just don't prioritize it, and that is not good of course.

In order to control and manage the many work tasks that emerged from the use of social media new facilities were introduced into the organizations (Orlikowski, 2000). The hotel chain implemented an app referred to as "Circus" that was used to manage social media practices, for example to plan when to post pictures or advertising. The tool also gave alerts when the hotels got an online review that needed to be answered. The employees described that the app was useful, but also stressful since it constantly gave them alerts about new online reviews. The facility exemplifies the heavy work load

that emerged from using multiple organizational social media and the need to manage the new work tasks that appeared.

### **Contradictions and Incongruencies**

During the seven years of the study, the individual employees and the hotel chain management developed different ways of making sense of social media. That is, their interpretative schemes became incongruent (Orlikowski, 2000) which resulted in contradictions in their interpretations of how to use social media in practice. The local hotels for example had different ways of using social media in practice depending on who was in charge of it in the specific organization. Furthermore, the local hotels did not want to use the hotel chain's policies or strategies concerning social media since it contradicted how they interpreted the best way of using social media and what they wanted to gain from it. In practice this meant that the local hotels did not post the pictures suggested by the hotel chain, nor did they want to market the whole hotel chain. Instead they wanted to create relationships with customers relevant to their hotel and their surroundings. However, the main conflict, according to the hotel chain, was that the local hotels did not have enough digital presence to manage the social media platforms properly. The hotels were encouraged to use multiple social media platforms or facilities (Orlikowski, 2000), often more than five, e.g. Facebook, Twitter, Instagram and LinkedIn, which obviously caused the need for being reactive. However, the different platforms were often chosen depending on the employee's private use of social media and what platform they were most familiar or comfortable with. That is, if an employee used Instagram in their private life, they often chose to focus on that platform in their work tasks. Similarly, if they were not familiar with Twitter, they did not bother to use it at work. This is an example of how interpretative schemes caused direct effects on work tasks related to social media (Orlikowski, 2000). Marie exemplifies this:

Why should we use Twitter? I don't really like it, I don't use it and I don't read stuff on it. And by the way, we are a hotel that mostly have business guests. I mean these men do not use Twitter, they don't have the time for social media! And to be honest, how many are actually using Twitter, really?

The employees expressed that they were aware of the benefits that social media could bring when interacting with customers, but also expressed negative attitudes towards the obligatory use of social media and the lack of time and resources. The different interpretative schemes (Orlikowski, 2000) resulted in formal policies, i.e., organizational norms, being ignored, and the employees used social media in ways that suited their current work situation.

### **New Structures and Routines**

From 2013-2017 the practical use of social media had a decentralized organizational structure and was primarily managed by the local hotels themselves. Due to the fact that employees had ignored the

formal strategies and policies for years, social media use sprawled. This was a great concern for the hotel chain, which was afraid of losing control over the hotel brand. Hence, the contradictions and incongruencies in the interpretative schemes of the usefulness of social media affected the practical use of it (Orlikowski, 2000). As a result, the hotel chain took a decision in 2017 to radically change how social media was managed. Hence, new organizational structures (Orlikowski, 2000) were created in order to create control over the social media use in practice. These structural changes emerged as a direct result of the discrepancy in interpretative schemes (Orlikowski, 2000) between the hotel chain management and individual employees and individual employees' technology-in-use (Orlikowski, 2000). During 2017-2020 the social media management was structured in five levels: the social media manager (hotel chain head office), regional social media manager (e.g. northern Europe), social media content manager (e.g. smaller parts of northern Europe), regional social media managers (e.g. hotels within a specific country) and social media champions at the individual hotels (see Figure 1).

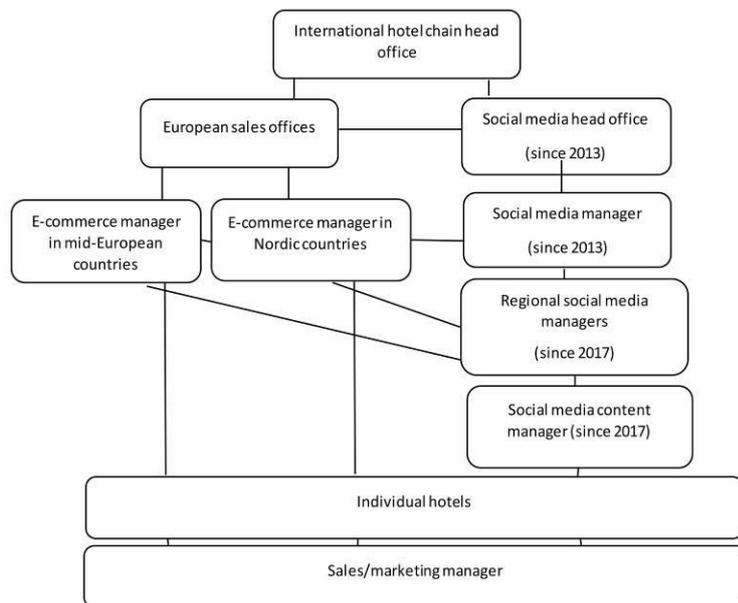


Figure 1 – Overview of organizational structure 2017-2020

By re-structuring the organizational structure, and creating a more top-down approach inspired by a bureaucratic organizational structure with clear responsibilities related to different positions within the organization, the management gained more control over what was published and said in social media related to the hotel brand. As a result, the individual hotels and their employees were no longer allowed to be in charge of their social media channels, hence the “technology-in-use” (Orlikowski, 2000) was controlled. In order to create this control and new structure, all social media channels besides Facebook were shut down and the publishing and content production were managed centrally, from the social media management offices. Wilma, one of the regional social media managers, explains:

The hotel chain was not satisfied with how the hotels used social media. They felt that they were losing control and that the quality of the posts and the pictures were poor. Therefore, they decided to take control over it [social media use]. I don't really like it, but I understand why they did it.

The use of multiple social media during the seven years illustrates how the strong effect of individual employees' (both on a chain and local hotel level) interpretative schemes of social media had consequences for the technology in practice (Orlikowski, 2000), resulting in a need for organizational restructuring. Major importance was put on creating organizational policies and clearer strategies on how to use social media, but also explaining why to use social media in a specific way (Orlikowski, 2000). Hence this is arguably one of the most important instruments that enabled and influenced the structuring of social media use. Both the policies and the strategies can of course be related to organizational culture and their values of how to conduct things in the specific organization (Orlikowski, 2000). Interestingly, the case illustrates that the lack of consistent culture and understanding of the common strategy became transparent due to the incongruity in social media use. That is, using social media differently and interpreting its value in different ways shed light on organizational conflicts. The empirical data also illustrates that individuals with higher rank in the organizational hierarchy were highly influential when affecting the hotel chain social media management, which exemplifies that the technology-in-use (Orlikowski, 2000) greatly affected how the organizational hierarchies and structures developed over time.

### **Concluding Discussion**

The main purpose of this paper was to understand organizational use of multiple social media in terms of what new work practices and organizational structures emerge and change over time. In order to do so, an empirical analysis of these organizational practices was conducted in 14 hotels in eight European countries within an international hotel chain over seven years. By using Orlikowski's (2000) "practice lens" as an analytical tool, the study shed light on how people create structures that shape their actual use of technology over time. Hence, the study also emphasizes that technology use in a work context is not "static" but an ongoing social negotiation that is reproduced over time. This analysis resulted in illustrations of enacted structures, or technologies-in-practice, that exemplify the work tasks related to multiple use of social media use in an organizational context and consequences of the use on hierarchies and structures. Each of these structures represents different ways by which employees use multiple social media for different purposes and have or develop different interpretative schemes over time and how these affected organizational structures and hierarchies (Orlikowski, 2000). The use of social media in practice is enacted in existing routines performed by the individual employees, hence their use is constantly (re)negotiated among the users. That is, as employees use multiple organizational social media, they continue to endorse various tools to

structure and organize their use practices in order to manage the work load or make sense of the new technology use. It could be argued that the general understanding of organizational social media as a new category of technologies (Kapoor et al., 2015) makes employees more aware and anxious about the purpose of using these technologies and how the new technologies re-arrange their existing work practices, hierarchies, responsibilities and routines. Arguably, organizational social media have the possibility of creating new capacities in organizations (cf. Kapoor et al., 2015; Leonardi, 2013; Aral et al., 2013). However, the present study illustrates that realizing these capacities depends heavily on how individual employees structure and enact their social media use. Furthermore, this obviously also has a massive influence on the management of organizations, hence the need for creating more organizational control. The findings also illustrate that persistent use of organizational social media creates new work practices by creating the need for social activities (e.g. service encounters and interaction with customers) (Kapoor et al., 2015). The need for content to post on social media also created new knowledge and hence new organizational roles such as social media managers. Together, both the need for social media and the production of content created new organizational structures, hierarchies, and norms (see Figure 2) (Orlikowski, 2000; Leonardi, 2013).

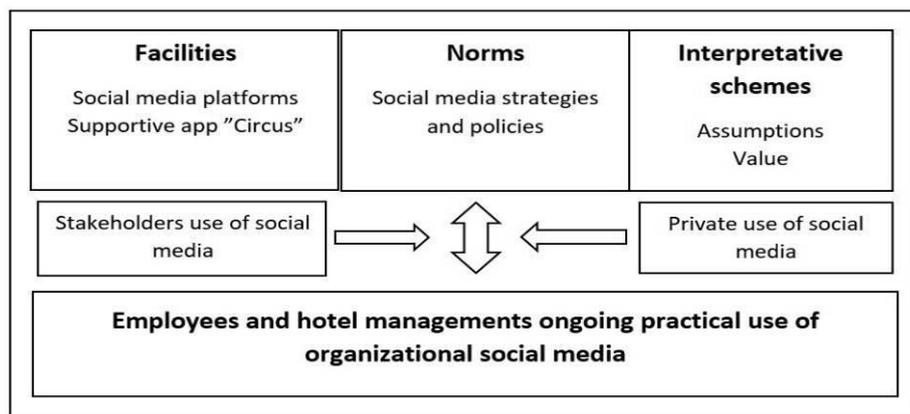


Figure 2 – Practices of organizational social media – adapted from Orlikowski (2000)

The study illustrates how the facilities (Orlikowski, 2000), the different social media technologies and their use, create new work practices both on a hotel chain management level and in the individual hotels. That is, both the micro and macro levels of the hotel chain's organizational structure are affected by individual employees' interaction with social media. Due to individual interpretations (Orlikowski, 2000), the social media policies and norms were ignored and informal norms and routines were created at the individual hotels. This created a discrepancy between the hotel chain management's social media strategy and the technology-in-use at each hotel. Hence, the present paper addresses the calls for more research on multiple organizational social media (Van Osch and Coursaris, 2013), and on how organizations are transformed due to multiple social media use (Aral et al., 2013). Therefore, the study gives a theoretical contribution by explaining how the use of social

media occurs in practice in organizations. Furthermore, the paper contributes to the literature on more general social media use in organizations by illustrating how the technology-in-practice constantly evolved over the seven years that the organizations were studied. The changes in work tasks and structures were both subtle and sometimes radical and continued to change, creating an unstable, very flexible management of social media practices.. Consequently, the present study will extend practice-based studies of technology and organizations (Schultze and Orlikowski, 2004). The present study also contributes practically by illustrating the organizational media use in a large, international hotel chain and its social media management over time and the organizational changes that emerged from it. The study has several limitations. First of all, it is a case study of one hotel chain and 14 hotels, which makes it difficult to generalize the results. Second, the theoretical framework of Orlikowski's (2000) practice lens has offered one way to study the use of social media in organizations. Therefore, it is recommended that further studies examine the use of multiple organizational social media and its consequences in other organizational contexts. Also, other theoretical frameworks can move beyond the focus of understanding technology use and focus on the social media artefact.

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## THE IMPLICATIONS OF FISCAL MANAGEMENT IN THE BEHAVIOR OF ROMANIAN ENTREPRENEURIAL MANAGEMENT

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### ABSTRACT

The paper aims to explore some of the perspectives of emphasizing the role “fiscal manager” within each entrepreneurial organization based on theoretical-descriptive research. It is known that, the fiscal management is a function of every entrepreneur’s approach, which is at the heart of his concerns, by establishing appropriate managerial measures, both from the perspective of fulfilling the fiscal obligations due to the state budget, as well as from the perspective of income realization, we consider useful the presentation of some ideas of the phenomenon of regulation of this managerial function. This managerial activity represents a real challenge with a significant impact, from the economic-fiscal plan of entrepreneurship in Romania, as well as in terms of legal aspects regulated by the normative acts in force. The importance of the role of “fiscal manager” results from the multitude of fiscal obligations and from the experience of factual situations in the entrepreneurial environment, which according to the financial effects and the impact on the organization and on the state budget could create financial imbalances with unpleasant consequences. The study emphasizes the efficiency, equity and opportunity of implicit evidence of several characteristics of managerial behavior to ensure a balance between the financial benefits obtained and the fulfillment of fiscal obligations due to the state budget.

*Keywords: entrepreneur, fiscal law, fiscal manager, fiscal management, fiscal obligation, fiscal strategy.*

### INTRODUCTION

#### **The context of the study**

Starting from the primary role of the entrepreneur, which consists in the diligence of undertaking a successful business, from the establishment of the business to its efforts to maintain the business, with exceeding all periods of existence of the business on the market, it needs to have the appropriate techniques and tools to fulfill its role.

This paper analyzes and aims to carry out of theoretical research and development, fundamental and conceptual role of fiscal management by direct observation of reality, based on the existing legislative

regulations in Romania, in order to know the direct and indirect connections and effects on the development of personal business.

In the administration of those shown, was performed theoretical analyzes on the Romanian legislation and the norms of their implementation, to build awareness of the role and importance of efficient, sustainable and equitable fiscal management.

In this regard, the paper does not want to draw attention, managerial theories of the entrepreneur from the perspective of his functions, principles and modalities, rather, this theoretical research aspires to carefully examine the implications and incorporation of a distinctive fiscal function and revealing a perspective a importance of having the ability to be a business manager, on the fiscal side of its activity, having a significant impact in fulfilling its obligation to the state budget. This paper also aims to emphasize the importance of managerial responsibility, by implementing the legal regulations in the fiscal field. Careful research leads us to an easy understanding of the existence of a fiscal managerial function in a balanced way from within each organization.

The examined topic approaches a conceptual research, theoretical-descriptive from all points of view of the provisions of the Romanian normative acts with an impact on the organization management activity, as well as the way in which the management of the fiscal activity can be regulated, in own opinion.

Overall, we consider it opportune to create productive connections and with efficiency for the materialization of the fiscal managerial activity, such us, the subject brings benefits and becomes adequate within the functions adjacent to the position of general manager.

In conclusion, the attention given to this topic may constitute an implementation initiative, specifically, fiscal management for all types of organizations and businesses, significant for all types of economic relations better management of their own business on the one hand and on the other hand of the consolidated general budget of the state.

## **SCOPE OF STUDY**

The purpose of the proposed paper is to the emphasize the importance of managerial responsibility by implementing the legal regulations in the fiscal field and through subtle involvement, under the auspices of self-inspiration and flexibility in the capacity of "fiscal manager" for small organizations and the creation of the function of "fiscal manager" or at least of a person in charge with attributions in this sense, for medium and large organizations.

The vision of my perspective consists in interpretations adopted on the basis of the legal regulations in effect, as well as the knowledge acquired from the generally know entrepreneurial activity. We recognize that, given the public (and not private) legal nature of fiscal obligations whose source is the

law, supplementing with legal provisions in the field of private law, which have a rule, all the elements which thorough the medium by the internal decisions of the managers of the organizations, must not contravene the principles of public law, whereas tax law is part of the branch of public law, which is based on law.

## **OBJECTIVE OF STUDY**

The ultimate objective of theoretical research is to identify the implications of fiscal attributions from a managerial perspective and to find out whether it is important to institute and foundation the position “fiscal manager” or the attributions delegated to that sense, as well as the importance of organizing and training “formal and fund comportment” (Dimov, 2011) of entrepreneurs on the procedure for administering fiscal obligations due to the state budget and how to apply this procedure, part of fiscal management.

Therefore, within these objectives the specificity of the researched topic is given by:

- Fiscal conformation of all taxpayers;
- The right to a balance between one’s own economic budget and due and/or overdue fiscal obligations as a consequence fiscal legal relationship between the taxpayer and the state, respectively of the public authority designated with the collection and administration of fiscal receivables;
- A consequent and advantageousness of the organization in relation to the requirements of legislative norms and regulations.

## **SCIENTIFIC RESEARCH METHODOLOGY**

The research topic to research theoretical-descriptive analysis is based on the study of public written documents, as well as the vision in the specialty literature in order to highlight the characteristic of the general context in which the researched phenomenon is included and establishing a report of interdependence between fiscal management, as an eminently and indissoluble component, essential part of entrepreneurial management.

It is proposed by conducting this study a harmonious combination of interpretation between the general management objectives of a business and the subsequent relationship of the general fiscal objectives of the same business, not claiming that, the topic is exhausted, on the contrary, one can insist on the possibility of choosing with predilection and other research methods to get to the same conclusion.

## REVISED LITERATURE

### *Applicable normative regulations*

Bringing to the forefront of the theoretical research, the provision of Article 45 of the Romanian Constitution, republished, by which it is mentioned that free access to an economic activity, free initiative of any person, and the pursuit of such activities in a market economy is guaranteed by the State, we can say that any entrepreneurial activity is the most important segment of a national economy (Petreski, 2006) and is carried out under the auspices of the full trust of the state, and by legislating those normative instruments, for the realization of the state guarantee. Also, by the fundamental law, in Article 56, the obligation of all citizens to contribute through taxes and fees to the public expenditure of the state is established, being ensured a legal system of taxes, by the fair placement of the fiscal burdens for all taxpayers/payers located on the Romanian territory.

In that regard, from the point of view of the interpretation and application of the fiscal provisions with extraneous elements, any provision of fiscal law that is contrary to a provision of the Treaty to which Romania is a party, that provision of the international treaty shall apply. This applicability has its finds its way origin in Article 20 of the fundamental law, in the sense that, when certain inconsistencies between pacts and treaties on fundamental human rights are found, to which Romania is a party, and domestic laws, have priority international regulations, making those cases in which the Romanian Constitution or domestic laws, contain more favorable provisions for physical and legal persons located in Romania.

What should also be noted is that, in case of non-compliance with the obligations to pay to the state budget all fiscal obligations, are subject to the interpretation and application of national law in all regulations, but especially of the Fiscal Code and Fiscal Procedure Code, as well as normative administrative acts in the fiscal field.

### *Managerial strategies with applicability in fiscal management*

An inseparable part of any business management, fiscal management is part of that instrument of action of each manager, which considers in the first place, efficient and effective management of its own expenditure and control in its organization, as well as their permanent monitoring, to remove any related responsibilities, as a result of inadequate measures applied. All these elements lead to the manifestation of the financial balance of the organization in report with fiscal obligations which must be due to the budget state.

Guided by his exposition Estrin, Korosteleva și Mickiewicz (2020) who argue that, improving knowledge through innovation by entrepreneurs has that results the enlargement extent of notions, ideas, information in their field of activity, we may consider it opportune that there could be a

progressive and balanced preoccupation between business development and fulfilling the duties of entrepreneurs.

Before drawing up the appropriate strategies for fiscal management, it is correct to remember that, the system of any type of management, is based on a set of main elements that characterize this activity, and these elements consist of organizational, decision-making, informational and methodological aspects, which, together, determine the achievement of the purpose of setting up the entrepreneurial organization (Hudea, 2020).

To achieve the purpose of the organization, the manager or management team must implement, based on the rules established within the organization, depending on its type and size, the concrete strategies for fulfilling the obligations due to the state budget.

Without claiming that I have covered the entire theoretical support of management strategies, this range being very wide, I try to identify only those strategies compatible with the fiscal management system, from the point of view of the economic and fiscal situation in Romania.

In this sense, a business model, which falls into the category of those entrepreneurs with high sustainability always keep in mind that in the first place the business strategy should contain the medium and long-term perspective of corresponding functionality, from the point of view of the legality of its activity.

According to an opinion from the literature (Nicolescu et al., 1996), the following elements of organizational strategies in a business are identified, representing major components: the mission, the fundamental objectives, strategic options, resources, deadlines and competitive advantage. In consideration a definition ever formulated (Porter, 1996), through which states that "Strategy is an integrated set of option which positions the organization in a particular field to achieve superior long-term results." and in this encouragement support the definition given to the strategy (Nicolescu, 2020) it is emphasized that this represents "the ensemble long-term objectives of the organization, the main ways of achieving this, together with the allocated resources, in the sight of obtain the competitive advantage according to the mission of the organization.", we can identify as a new contribution to this theory the following basic actions, that can constitute fiscal management strategies:

- Strategy for identification, awareness and analysis of fiscal obligations;
- Strategy for assessing the risk of non-payment, within the established deadlines, according to the fiscal legislation;
- The strategy of effective payment of the fiscal obligation.

Reviewing what has been said, correlatively the objective of fiscal compliance, we can affirm that, any contractor must formulate a set of minimum requirements, and depending on the organizational

context, supplement these requirements with regard to the preparation of a budget plan, which of course includes the anticipated income and expenses of the organization.

At the same time, it is not to be neglected that, the financial information and transactions must first be processed and approved, to then proceed by point of view of financial analysis, and depending on the result obtained, to establish the management responsibilities within the respective organization.

From the point of view of the minimum requirements required to be adopted and shown above, it should be noted that, they provide additional guidance depending on the size and capacity of the organization concerned to establish its economic and budgetary indicators, and when it's the case, moving to a revision of the guidelines appears to be a necessity, so that the final goal of the fiscal management strategy is to be achieved based on the assimilated thorough knowledge.

The results of the analysis performed by now, determine the consideration of the existence of a primordial role in the internal control business management, in the sense of following exactly the fiscal management plan carried out at the level of the organization.

If we were to accept the affirmation "organizational culture produces and reshapes behaviors, generates attitudes and determines states of mind, but, at the same time, it influences the manner in which there are configured the systems and the value attributed to them, including to the internal control." (Domnişoru, Ogarcă and Dragomir, 2017), this would mean accepting the opinion of the same authors in the same paper, when argue that for the period 1991-1995 "internal control, according to the level of culture, could be rather sanctioning (in the East) but mostly the promoter of the idea of correctness and, specifically, normality (in the West)." At present, we cannot fully agree to these claims for the internal control of fiscal management, whereas the role and good faith in fulfilling the fiscal obligations of any taxpayers would be volatized, which it enjoys according to the legal norms and the fiscal obligations subjects to payment to the state budget it would be under the rule of behaviors and influences, differentiated according to the geographical location of the taxpayer.

In conclusion, in terms of the effectiveness of the organization's management strategy, we can say that in order to eliminate the errors and possible irregularities that can be committed in order to pay the fiscal obligations, internal organizational control becomes important by indentifying them in time, posterior the occurrence of any event with a financial impact on the part of the competent fiscal authority. In this form, it is realizing an adequate balance between all the duties of the organization and the fulfillment of the legislative consequences established by law.

## **WAYS TO APPROACH EFFICIENT SHORT AND LONG TERM FISCAL MANAGEMENT**

It is known that, entrepreneurial activity is the most important segment of national economy, thesis (Global Entrepreneurship Monitor, 2020) arguing “that entrepreneurs contribute to or even lead structural change in an economy, since their new ventures reflect changing tastes, disruption, new technologies and processes as new sectors are born and grow” it seems natural that by addressing efforts to make the organization’s productivity profitable, the focus should also be on the fiscal obligations owed to the state budget. As for us, the need for efficient fiscal management it is justified from the perspective of the multitude and diversity of taxes and duties due to the general consolidated state budget.

In this context and in the light of the above, the potential for tracking fiscal obligations and continuing managerial development, should take into account the following coordinates:

a) From the point of view of creativity, having and finding intuitive and original solutions to the identified problems, with reference to the legal provisions, constitutes a major force in the internal activity of business administration. Also, imagination and flexibility in approaching problems support the manager's ability to fulfill obligations;

b) Innovation - a significant element of its activity, is the process of interconditioning with creativity, in the sense of simplifying the architectural scheme of fiscal obligations, but at the same time, does not omit any of these obligations. By avoiding setting ambiguous goals and meeting unforeseen events, with tact and diplomacy, I believe that this managerial capacity can be achieved;

c) Ability to plan and manage in order to achieve the objectives: having regard to all conditions and restrictions in the external and internal environment, the short and long term trajectory of the business can be established, performance objectives, by developing strategies, as well as the action plan specific to each business;

d) Assumption risks: in this context, I consider that, maintaining an intelligent perspective on the identified situation and the application of effective measures to prevent difficulties, contributes to improving the performance and ability to identify judicious solutions.

Skills and specialized knowledge in financial-fiscal law by a competent person is an effectively condition for deploying on a commercial activity, whereas the proposed solutions to the problems, the analysis of the portfolio of fiscal obligations, presentation of answers and recommendations, as well as the formulation of information for all the factors involved in the commercial activity, lead to a higher quality level of fiscal management.

Also, not a few times, the manager has the duty to develop conformation skills, according to the financial-fiscal legislation, which is imposed by the rapid technological, economic and social developments in contemporary society.

## DISCUSSIONS ON ETHICAL VALUE

Alvarez and Barney (2007) talk about the varieties of risk-taking of entrepreneurs associated with decision-making in particular, which from the perspective of the principles of taxation regulated in the Code of Fiscal Procedure, we appreciate that by adding the value of profitability on venture capital (Alperovych, Hubner, 2013), these decisions are related to the ethical conduct of the manager.

The ethical values of a fiscal manager are strongly highlights, by the interest and concerns it must have, both the company as an ensemble and its subordinates, by making effectiveness use of fiscal education and its the sphere of digitization concerns in order to fulfill the compliance process in the fiscal field.

The ethical values of a fiscal manager are identified by fulfilling the following obligations:

- a) Declaration of taxable goods and revenues or, as the case, a taxes, fees, contributions and other amounts due to the consolidated state budget;
- b) Payment on legal terms, calculation and registration in the accounting and fiscal records of taxes, fees and social contributions, as well as other amounts due;
- c) Payment of interest, late payment increases and late payment penalties, related to all fiscal obligations due to the state budget;
- d) Any other obligations incumbent on taxpayers, physical and legal persons, in the application of the normative acts in effect in the fiscal field.

On relatively similar coordinates Cox et al. (2018) speaks, as a result of experimental studies, non-existence of independence between the fiscal obligations of entrepreneurs in relation to sellers/buyers, as well as on the effects of market institutions, which ultimately determines a correspondence attention in both direction. Thus, it follows implicitly that the fiscal authority being excluded from this axiom, it has the prerogative to pretend what it deserves, according to the legal regulations in force.

Therefore, in view of the need for internal and external funds, sufficient for the activity of entrepreneurs, (Baeyens and Manigart, 2006), result implicitly in my opinion that, based on the ethical values shown and assumption general responsibilities of a manager in the fiscal field and from the legal point of view, these responsibilities have a special particularity; being able to be register the following elements:

- a) Consistent monitoring of policies, regulations and normative acts at local, regional and national level, and when present relevant to the business, at international level;
- b) Accurate and efficient fulfillment of the organization's objectives;

- c) Monitoring, supervision and management of financial problems;
- d) Adoption of conclusive managerial decisions, timely and at time.

In applying the specific duties of fiscal manager, by choice with a predilection for effective behavior (Ortiz-Ospina, 2016) and without changing its „behavior in response to taxes“ the manager must consider the ability to adopt new technologies and digital platforms in the field of public sector taxation to strengthen the collection of fiscal obligations, for reducing and eliminating fiscal evasion, by increasing fiscal transparency, resulting in the quality of public spending.

As he claims Jingnan et al. (2017) that the benefit of the IT sector in the tax system creates a “reducing tax collection costs and increases administrative efficiency” as well as “the behavioral implications of any implementation of digital technology for the administration of taxes must be examined to avoid undesirable consequences.”, serves as a support for bringing pro-digitization arguments. In order to strengthen the reasoning set out, we say that integrated informatics systems allow their users, simplification of fiscal obligations so that, by capitalizing on these advantages, to be able to accurately improve the administration of taxes and duties, making public spending and eliminating fiscal evasion (Goulder, 1990), as well as other irregularities (Carfi, Fici, 2012), such as for example money laundering and terrorist financing.

With respect to Romania, the fulfillment and exercise of the specific attribution of performing by digitalization the payments of the fiscal obligations- component part of fiscal management, this activity is still to be expected, as fiscal digitization is slowing down, the degree of fulfillment being 33%, and the European average of over 50%, and the lack of coherent public policies, contributes to this state of affairs (Diaconu, 2019).

All these values constitute elements of honesty, respect and responsibility of managers, in the fiscal segment, and all the rules of moral conduct, which governing the relationship between managers and fiscal authorities, they can be improved, through their awareness, in order to adopt behaviors, habits and attitudes in accordance comply with the letter and spirit of the law.

It is necessary that the representatives of the fiscal authority to listen to the company manager to express his point of view on the difficult facts and circumstances the company is going through, this being done before a final decision is taken to start its execution, as well as for the situation when the company is obliged to pay the accessory fiscal obligations: interest, late payment penalties and late payment increases.

## CONCLUSIONS

In view of the above, I consider that the multitude of businesses would be diminished, which after the first year of operation, they reach one of the forms of insolvency provided by Law no. 85/2014 on

insolvency prevention and insolvency procedures, as subsequently amended and supplemented, and often, the end is bankruptcy. In the sense shown, a proposal to amend Romanian legislation, by lege ferenda, I consider that it is necessary to amend the Fiscal Procedure Code, in article 9, paragraph 2, letters c) and d).

In parallel with those presented, the forecast quality of the fiscal manager resides in the real anticipation of his financial situation, so that, he can submit the necessary diligences to the fiscal authority to save his organization.

I consider that by all these norms, a pro-active spirit can be reached on the part of the fiscal authorities, whereas the financial results of the organizations can prove this, thus leading to the idea that "Financial innovation can change effective risks and change the stability of public sector finances." (Oldani and Savona, 2005). Removing any concepts and ideas that produce fraudulent acts and fiscal evasion, constitutes financial crime (national and/or international), it is a beneficial way for the awareness of the obligation to rigorously fulfill the fiscal obligations towards the state.

From the examination presented, I concluded that the implications of fiscal management, as a component part of entrepreneurial management behavior subsists congruently and the basis of a fiscal manager's training, from the creation of the business, to the development and removal of elements harmful to the business is achieved by mastering fiscal management strategies, internal control, coordinates for tracking fiscal obligations, ethical and moral values, as well as the responsibility for efficient fiscal management, which leads to prosperity and well-being, both of the organization and of all employees. It follows, therefore, the positive influence of the position of "fiscal manager" in the entrepreneurial activity, as a continuous support and supervision of what happens in the organization from a fiscal and budgetary point of view.

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## DIGITAL SERVICITIZATION: A PRELIMINARY ANALYSIS OF THE INTERSECTION OF TWO PHENOMENA

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### ABSTRACT

Digitalization and servitization are two important phenomena that are redefining the competition and forcing companies to rethink their entire business model. Despite the connection between servitization and digital technologies is not recent, the link between them is still far from being exhaustively investigated. Servitization and digitalization are two literature fields that are now merging into one mainstream. The aim of this paper is to contribute to this emerging mainstream. We start analyzing the two topics separately, identifying their main trends and defining their characteristics. Then we focus on the literature dealing with the intersection of digitalization and servitization proposing the IDEO's Business Model Canvas Lenses as a framework to investigate it. The analysis shows that three fields such as customer segments, channels and cost structure are still uncovered, and they can represent future areas of research.

*Keywords: digitalization, servitization, ICT, business model, canvas, value creation*

### DIGITALIZATION

Our life has gone digital and the economic and social paradigms are changing due to the significant influence of digitalization (Lopatkova et al., 2019). The aim of this paper is to contribute to the literature dealing with the intersection of two phenomena: digitalization and servitization. The fields of digital transformation and servitization are still new and emerging and the literature dealing with their intersection is emerging as well.

The term digital transformation (also known as digitalization) refers to the use of technological potentials to change business models and value chains to better meet customers' need and provide products and services more efficiently (Schallmo and Williams, 2018). Thus, if digitization is a technical process, digitalization is a socio-technological process of applying digitization techniques to broader social and institutional contexts that render digital technologies infrastructure (Sussan and Acs, 2017).

The digital transformation has four main levers (Roland Berger Strategy Consultants, 2015): 1) *Digital Data*: capturing, processing and analyzing digital data to do better predictions and make more informed decision; 2) *Automation*: combining traditional technologies with artificial intelligence creates systems that work autonomously and organize themselves reducing errors and operating costs; 3) *Connectivity*: interconnecting the entire value chain synchronizes supply chains and abbreviates production lead times and innovation cycles; 4) *Digital Customer Access*: the (mobile) internet allows direct access to customers that experience full transparency and new services.

This transformation has brought changes such as digital data, automated production processes, interconnection of value chains and digital customers. These changes have affected sales and productivity, brought innovations in value creation and new forms of interaction with empowered customers. As a result, entire business models have been reshaped or replaced (Downes and Nunes 2013) due to several factors (Henriette et al., 2015):

- Competition's pressure: companies must undertake deep transformations by digitizing assets in order to stay competitive as technological shifts have broken down market barriers for new disruptive competitors (e.g. Netflix, Uber, etc).
- Market expansion: digital skills are necessary to conquer new markets and business models need to be adjusted accordingly.
- Customers' expectations: technology savvy customers demand cutting-edge technologies to receive customized services.

Thus, considering the complexity of this digital transformation and its implications, companies need to establish management practices and procedures to govern this disruptive change. A common approach for companies is to formulate a digital transformation strategy that serves as a central point to coordinate and implement the digital transformation. According to Matt et al. (2015) there are four critical dimensions of the digital strategy:

1) Use of technologies, which indicates the familiarity of a company with new technologies and the way they are implemented. Companies can decide to either become technological leaders or simply use technologies that others develop; 2) changes in value creation, inevitable caused by different business models where the value proposition changes and the power of customers as well; 3) structural changes, which are needed in order to adapt the corporate structures and 4) financial aspects that are preliminary to the previous three points as capital is either driver or limit for the digital transformation.

The formulation and implementation of a digital transformation strategy has become a key concern for many organizations, considering the deep impacts of digital technologies on almost every aspect of an organization's inner and outer environment (Chanas et al., 2019).

## SERVITIZATION

The advance of services is a general trend of the modern economies with their value added that accounts for the 65% of the global GDP. In many industries the percentage of manufacturing firms committed in the provision of services is very high (Neely, 2009; Crozet and Milet, 2017). Manufacturing firms have been changing their offering based on the only product into a bundle of tangible and intangible components also known as product-service systems (PSS) (Vandermerwe and Rada, 1988; Tukker, 2004; Baines et al., 2009).

The phenomenon of adding services is called servitization (Vandermerwe and Rada, 1988) and it is a new competitive strategy by which manufacturing firms (Baines and Lightfoot, 2013) respond to many changes coming from both the offering and the demand.

Starting from the offering, the market saturation has pushed manufactures to explore the service market in order to capture new profits and seek new growth opportunities (Wise and Baumgartner, 1999; Kowalkowski et al., 2017). By adding services, firms pursue the offering differentiation to overcome the commodity trap and build a competitive advantage (Baines et al., 2017; Kowalkowski et al., 2017). From the demand side, the provision of tailored PSS can answer to the demanding requirements of customers that are interested in services to use products to their full potential and to be supported during the consumption (Baines et al., 2009; Visnjic Kastalli and Van Loy, 2013; Cusumano et al., 2015). Thanks to services, firms can lock customers in long-term relationship so that their loyalty can increase over the time (Kowalkowski et al., 2017) and firms can benefit from revenue streams over the time (Baines and Lightfoot, 2013).

Furthermore, servitization is conceived also as opportunity to promote new business models that are more environmentally sustainable allowing the reduction of the material flow (Goedkoop et al., 1999). Thus, those reasons have pushed firms to enter the service market and to move downstream along the supply chain by carrying out small-scale vertical integration (Baines and Lightfoot, 2013). Manufacturing firms start to perform new activities that previously were conducted by customers or third service firms reconfiguring and stretching their value chain (Wise and Baumgartner, 1999; Baines and Lightfoot, 2013; Rabetino and Kohtamaki, 2018). In this way they capture more value along the value chain and across the entire product life cycle (Bustinza et al., 2015) as well as they can improve their control on the customer requirements (Rabetino and Kohtamaki, 2018).

As told the adding of services change the firms' offering that can assume several configurations along a continuum whose extremes are pure product and pure service (Baines et al., 2009). This transition towards more intense service offering is often conceptualized as a forward and unidirectional process carried by stepwise stages (Oliva and Kallenberg, 2003) or by the gradually adding of services (Baines and Lightfoot, 2013; Benedettini and Neely, 2018). However, other works suggest that the transition is

characterized by continuous revisions (Kowalkowski et al., 2012) or by radical change (Brax, 2005) that undermine unidirectional and gradual models. Furthermore, the route is also affected by environmental factors (Finne et al., 2013) and the industry life cycle (Cusumano et al., 2015). Finally, firms can also move back to more product-oriented business model due to servitization failures (Valtakoski, 2017). In fact, servitization is very challenging from an organizational point of view (Baines et al., 2009; Martinez et al., 2010) and manufacturing firms often do not gain what expected falling in the so-called “service paradox” (Gebauer et al., 2005). In particular, servitized firms often struggle to increase in the profitability rates due to the high costs of implementation (Neely, 2008; Min et al., 2015) and they risk to go bankrupt much more than the pure manufacturing firms (Benedettini et al., 2015). Furthermore, the performance is not linear, but it depends on the intensity of servitization. Only certain degrees of servitization meet improvement of performance (Fang et al., 2008; Kohtamaki et al., 2013; Visnjic Kastalli and Van Looy, 2013).

As told before, the implementation of servitization is not easy and it entails the shift from a product-oriented business model to a service-oriented one focused on the value in use where the customer takes on a central role (Baines et al., 2009). This shift requires a profound revision of many firm’s aspects that need to be adapted to the new service orientation such as the corporate culture (Gebauer et al., 2010), the organizational structure (Homburg et al., 2003; Gebauer and Kowalkowski, 2012) and the management of the human resource (Antioco et al., 2008; Baines and Lightfoot, 2013; Zhao et al., 2017).

The implementation causes firms to develop new capabilities, such as the relationship management with both suppliers and customers (Kohtamaki et al., 2013; Bohm et al., 2017), slack resources (Fang et al., 2008) and enablers such as ICTs (Baines and Lightfoot, 2013).

## **SERVITIZATION AND DIGITALIZATION**

The link between servitization and digital technologies is not recent. Seminal works about servitization point out how technologies can support the service provision by manufacturing firms that embed digital technologies in their own products (Vandermerwe and Rada, 1988; Wise and Baumgartner, 1991; Neely, 2008). The role of digital technologies is widely acknowledged in case of advanced services’ provision, outcome-based contracts and other PSSs (Smith, 2013; Baines et al., 2017; Visnjic et al., 2017). ICTs are fundamental for servitized firms to perform several activities during the provision such as (Baines and Lightfoot, 2013):

- monitoring of products or components to collect data;
- transmission of collected data and fault codes to the manufacturer;
- store of data;

- analysis of data;
- repair and maintenance in case of product failure.

Different digital tools are used by manufacturing firms to support servitization such as the cloud computing (Sultan, 2014; Wen and Zhou, 2016), the predictive analysis (Ardolino et al., 2018), the Internet of Things (IoT) (Ardolino et al., 2018; Rymaszewska et al., 2017; Boehmer et al., 2020), remote monitoring technologies (RMT), and the big data (Opresnik and Taisch, 2015).

Although servitization can do without the digital technologies in many cases, the intersection between service strategies and digitalization has not been much investigated (Kohtamaki et al., 2020). Digital technologies are often conceived as enabler of the broader phenomenon of servitization (Baines and Lightfoot, 2013; Cenamor et al., 2017) and thus the conceptualization of digital servitization is recent (Kohtamaki et al., 2020). Servitization and digitalization are progressively seen as two trends that are merging into a new mainstream that groups those works that study the interplay between the two phenomena (Lerch and Gotsch, 2015; Coreynen et al., 2017; Kohtamaki et al., 2020). According to Vendrell-Herrero et al. (2017), digital servitization deals with the provision of services that are based on digital components embedded in products.

From the initial literature that is based on the intersection of the two trends, it emerges that digitalization by its numerous tools furthers the implementation of service strategies as well as the conception of revolutionary services (Baird and Raghu 2015; Coreynen et al., 2017). Furthermore, digitalization allows servitized firms to boost the value creation (Belvedere et al., 2013; Grubic, 2018) guaranteeing the building of a protected competitive advantage and new potential revenue streams (Opresnik & Taisch, 2015; Sanchez-Montesinos et al., 2018).

Indeed, the literature dealing with the intersection and reciprocal influence of servitization and digitalization phenomenon, has been focused on two macro areas: Business Model and Strategies affecting the Business Model.

We used the Business Model Canvas (BMC) in order to better understand how the literature is studying the impact of servitization and digitalization on business model. More specifically, we applied the IDEO's *Three Lenses of Innovation* (Fig. 1) as they group the BMC boxes into macro areas that represent a good way of examining the different aspects of a business. Each lens highlights different strengths and weaknesses, and by looking at the intersection of all three, companies can find strong ideas to succeed.

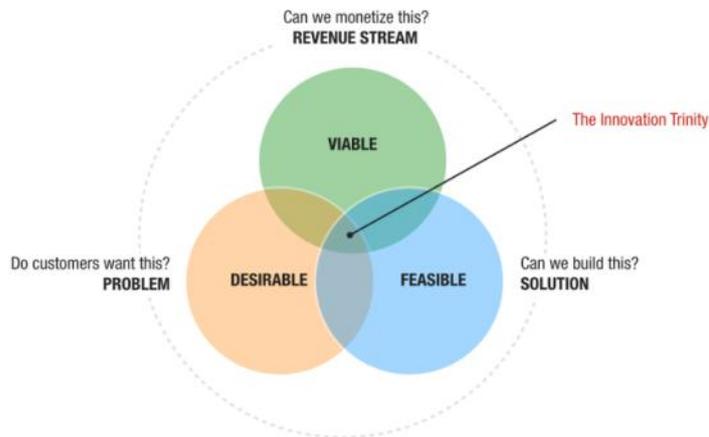


Figure 1. IDEO's Business Model Canvas Lenses

As Figure 2 shows, *desirability* refers to the portion of the BMC dealing with the understanding of what customers want, what motivates them, what is their pain point in order to engage them, complete the transaction and eventually build a relationship.

*Feasibility* answers the question: is this technically and organizationally feasible? This section of the BMC helps companies understand and plan their needs in terms of capabilities, resources, tools, partners and right set of activities.

*Viability* refers to the portion of the BMC focused on money, on the ratio between inflow and outflow.

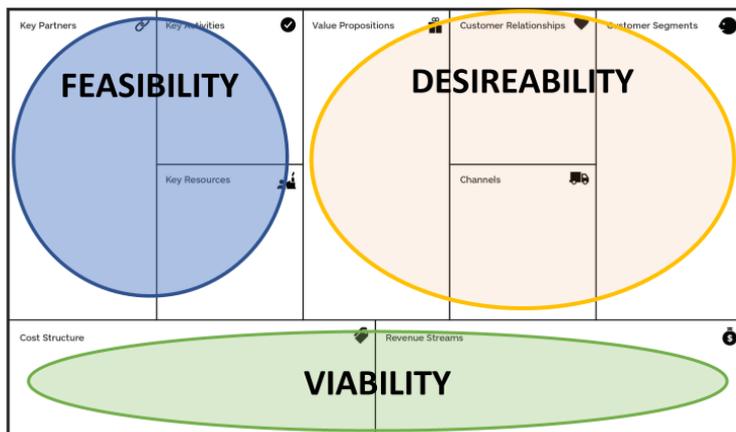


Figure 2. The IDEO's Three Lenses of Innovation

The servitization-digitalization literature has studied elements in all three sections with a stronger focus on feasibility and desirability (Fig. 3).

Starting with the desirability, the literature has analyzed topics related to value creation, value co-creation and customer benefits, focusing on how Internet of Things and digital capabilities can support value creation in servitization business model (Lenka et al., 2017; Rymaszewska et al., 2017; Sjodin et al., 2020) and how the superior responsiveness of operating processes, possible thanks to ICTs and machine learning technology, is impacting value creation (Belvedere et al., 2013).

Moving to feasibility, the literature is especially focused on the key resources and capabilities needed to adapt the business and succeed in the servitization model (Parida et al., 2015; Bustinza et al., 2018). Part of the research has also been focusing on supply chain dynamics and the changes that digital technologies have brought to it (Vendrell-Herrero et al., 2017; Boehmer et al., 2020).

Last, moving to the viability, the attention is focused on general financial performance of the companies moving to servitization model in a digital economy (Ojala, 2016; Kohtamaki et al., 2020).



Figure 3. *Digitalization-Servitization literature topics on BMC*

Additionally, a part of the literature is focused on overall strategies needed in order to make the business model successful and somehow it defines the key activities to succeed. Topics are entry barriers (Sanchez-Montesinos et al., 2018), competitive advantage definition (Opresnik and Taisch, 2015; Sanchez-Montesinos et al., 2018), service centricity approach (Sklyar et al., 2019), green servitization (Opazo-Basáez et al., 2018), organizational shifts (Tronvoll, 2020;), and big data management (Opresnik and Taisch, 2015; Turunen et al., 2018).

The literature dealing with servitization and digitalization has not deeply investigated yet the definition of customer segments, channels and specific cost structure that companies should adopt in order to adjust their operations to the new business model.

## CONCLUSION AND IMPLICATIONS

The aim of this paper is to contribute to the literature dealing with the intersection of two phenomena: digitalization and servitization.

The digitalization literature is focused on the one hand on the concrete description of the digitalization-digitization phenomenon and its dynamics, on the other on the attempt to develop theories to explain digital transformation and its consequences (Sharon and Barney, 2008).

The servitization literature is huge and fragmented and it is difficult to systematize such a complexity. However, the acknowledgement of emerging new business models due to the servitization and the need for ICTs as enabler for the services provision is generally assumed, but the analysis of the ICTs' role by servitized firms in a managerial perspective is not investigated as much as other issues.

Going to the interplay between servitization and digitalization, which is not recent, it is clear that this link has not been deeply analyzed (Kohtamaki et al., 2020). Servitization and digitalization are two literature trends that are merging into a new field that groups those works that study the interplay between the two issues (Lerch and Gotsch, 2015; Coreynen et al., 2017; Kohtamaki et al., 2020).

In this vein, from a theoretical point of view this paper contributes to this emerging field by proposing the IDEO's three lenses of innovation of the Business Model Canvas as a framework to observe and study the intersection between digitalization and servitization. Given the impact of these phenomena on the companies' business models, this framework allows to identify the areas more affected and the type of impact. Six areas of the BMC are being addressed to differing degrees by the researchers' work namely: value proposition and customer relationship for the desirability lens, key partners and key resources for the feasibility lens, and revenue stream and partly cost structure for the viability lens. Thus, the following areas of concern seem to emerge: product-service differentiation; competitive advantage, competitive strategies; customer value; customer relationships, financial performance. This tendency emphasizes a strategic point of view of digital servitization where scholars tend to analyze how new digital business models can enhance the firms' competitive advantage by caring the customer relationship, and to evaluate the financial benefit coming from the implementation of the strategy.

Given that venture management in such a complex environment means rethinking existing business models, from a managerial point of view this paper proposes to use the BMC as a tool to identify the key areas that need immediate attention and highlights the type of change that can help shape a successful model.

This study also points to some interesting questions for further research as some areas of the BMC have not been further investigated, more in particular: customer segments and channels in the desirability lens, and a detailed cost structures in the viability lens. Considering the great organizational changes and the general reshuffle of competition brought by digital servitization, more

studies and tools need to be suggested to deepen the customer segments, the channels that with the fourth industrial revolution are profoundly reshaped and the cost structure that is inevitably affected by great organizational changes as it is already pointed out by several works about servitization.

As for the key activities of the feasibility lens, they have been addressed in a more general way through the analysis of the overall strategies needed in order to adapt operations to the new business model.

Thus, companies wanting to compete in this digital servitized era are challenged to re-think and re-shape their business model in order to survive and effectively compete.

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## INNOVATION AND EDUCATION CLUSTER IN THE REGION: STAFF POTENTIAL DEVELOPMENT

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### ABSTRACT

The work shows that innovative processes: digitalization, modernization, clustering, communications, the introduction of information technology, etc., could not be implemented without the participation of human resources. Today, national projects are an instrument of economic and social development of the country. Implementation of national projects also takes place with the help of human resources. In this regard, an innovative approach to the development of the personnel potential of the region is required. To this end, the article proposes to form an innovative educational cluster. The rationale for creating an innovative educational cluster in the region is presented. Also, the practical example of performing such approach to clustering these processes is presented taking Samara region National Educational Centre as an example.

*Keywords: innovations, digitalization, clustering, communications, human resources, national projects, innovative and educational cluster, national educational centers.*

### INTRODUCTION

Currently, the entire economic space not only of the country, but of the region is undergoing various changes associated with such innovative processes as digitalization, modernization, clustering, communications, the introduction of information technologies, etc. Without the active participation of human resources, these changes could not be implemented.

In addition, today the instrument of economic and social development of the country elected national projects, the implementation of which also occurs with the help of human resources (Bednyakov, 2019). Translated from Latin, "potential" means strength, power, power, opportunities, and personnel is a practical resource, qualified and educated specialists, i.e. people prepared for a particular type of activity, in accordance with education and work experience.

However, it must be emphasized that the degree of development of human resources to a large extent determines the power, level of development and the real strength of the personnel potential of the region.

## **METHODOLOGICAL APPROACH TO MAIN DEFINITIONS.**

It should further be noted that there is an obvious relationship between the concepts of “staff potential” and “human resources”.

Traditionally, the content of the concept of the staff potential of a region can be defined as joint skills, abilities, talents, abilities, competencies, i.e. these are opportunities that human resources possess and which can be used not only for the effective development of a given territory, but also for improving the living conditions of the population.

Analyzing the essence of the concept of the personnel potential of a region and its components, it is worth noting that in the center, it is based on human resources as the main force that defines goals and develops strategic and tactical plans for the economic development of this territory. In addition, the theoretical and practical aspects of this concept have qualitative and quantitative characteristics, and their economic assessment can also be revealed. Thus, the following indicators relate to indicators, characteristics and assessments of human resources, as forming and making up the personnel potential. Firstly, the characteristic of personal qualities: own health; acquired education; level of professionalism; ability to work; results achieved; a penchant for creativity and the presence of creative abilities; high level of morality; interpersonal communication; interdisciplinary versatile development; active life position.

Secondly, the most important indicators of personnel potential: structure and number of personnel potential; knowledge and skills; practical skills; qualification; implementation of management functions; age; professional staff; available manufacturing experience.

## **THEORETICAL BASIS OF FORMING INNOVATIVE EDUCATIONAL CLUSTER.**

A characteristic feature of current development of Russian regions is national projects and the introduction of digital technologies - these are the most important innovations in the life of the country and the region.

To implement Decree No. 204 “On National Goals and Strategic Tasks of the Development of the Russian Federation for the Period until 2024”, signed by the President in 2018, it was proposed to implement thirteen national projects: “Healthcare”, “Education”, “Demography”, “Culture”, “Safe and high-quality roads”, “Housing and urban environment”, “Ecology”, “Science”, “Small and medium business”, “Digital economy”, “Labor productivity and employment support”, “International cooperation and export”, “A comprehensive plan for the modernization and expansion of the main infrastructure.” (Decree, 2018).

Accordingly, for each of these projects in the regions, regional projects and municipal programs are additionally developed considering the current situation and the existing staff potential. There is no doubt that in the process of implementing these projects and programs innovative mechanisms, methods and techniques are used.

In this regard, an innovative approach to the management and development of the personnel potential of the region is necessary. Personnel potential, as the main "engine" of national projects in the region, should not only correspond to the dynamics of the implementation and implementation of the results of national projects, but also provide a reasonable lead to their own innovative development. For this, it is important to formulate targeted development of career growth and the development of innovative professional competencies. This determines the significant success of national projects. It is known that the main purpose of human resource management is the rational and efficient use of the creative capabilities of human resources.

It should also be noted that the implementation of national projects gives dynamic development to the region and requires appropriate staffing. At the same time, participation in national projects contributes to the development of human resources, which involves the mandatory formation of professional competencies necessary for the implementation of innovative activities.

The implementation of national projects essentially represents the innovative development of the region, which cannot be carried out without the use of innovative human resources. Practice shows that to create innovative human resources, even highly professional knowledge is not enough, you must be prepared to apply innovations, be able to generate innovations yourself, use innovative experience, and, most importantly, apply all this in your own activities.

In the context of the implementation of national projects in the region, considering the need and importance of improving the skills of human resources and the formation of innovative human resources, the article proposes the creation of an innovative and educational cluster that will ensure the transition to an innovative learning model (Smirnov, 2010). The formation of an innovative educational cluster is confirmed by the need to combine innovations and the educational process and their integration for the implementation of national projects in the region. Consider the content of this educational structure.

The term "cluster" was first proposed by the American scientist M. Porter. He gave the following definition: "A cluster is a group of geographically neighboring interconnected companies (suppliers, manufacturers, etc.) and related organizations (educational institutions, governing bodies, infrastructure companies) operating in a certain area and characterized by common activities and complementing each other" (Porter, 2008).

There are many points of view on the definition of the term “innovation cluster”. For example, this is of particular interest.

Innovative is a cluster that has the ability to quickly and efficiently distribute scientific developments, computer and digital technologies, achievements and inventions, innovations, i.e., to all enterprises, research organizations, higher education institutions, other educational institutions and other cluster members. new knowledge.

Another definition of the term “innovation cluster” is as follows.

An innovation cluster is a specially created group of enterprises or organizations that include innovation training centers for highly qualified specialists, research centers that generate scientific knowledge and ideas, as well as startups and business centers that ensure commercialization, implementation and implementation of innovations.

However, the authors of this work offer the following content of this concept: innovation cluster is a group of innovative organizations which purpose is the organization and conduct of fundamental and applied research, the development and implementation of innovative digital, computer technologies to solve pressing socio-economic problems in the region.

An educational cluster is a combination of higher education institutions in the region, as enterprises of one technological chain, into an appropriate cluster structure, the purpose of which is to create a common regional educational infrastructure designed to more efficiently organize the process of innovative education and satisfy the need for a highly educated personnel potential. Now we turn to the content of the innovative educational cluster. This article proposes to consider such a definition of innovative educational cluster

An innovative educational cluster is a combination of a group of innovative organizations and higher educational institutions, as enterprises of one technological chain, into a single cluster structure, the purpose of which is to create a common regional educational infrastructure, taking into account the development of innovative digital computer technologies and the introduction of innovations in the traditional universities the content and teaching methods, as well as to ensure a more efficient organization of the process of innovative education of personnel potential for solving pressing socio-economic problems in the region.

Educational technologies implemented in universities in such a cluster will be constantly optimized and will receive innovative development. In addition, it should be noted that in the innovation and educational cluster, all the necessary resources are integrated to provide innovative training, namely: an industrial park, a technology transfer center, a media center, and a business incubator.

- teams of scientists - researchers and researchers for fundamental and applied research;

-groups of designers to develop projects of new technologies and further commercialization of intelligent innovative products;

- Interdisciplinary teams of teaching staff with pedagogical innovations for the formation of the learning chain: scientific developments-digital technologies- production or business structures.

It must be said that for the implementation of national projects in the region, an innovative educational cluster will serve as the main generator of practice-oriented knowledge.

It is impossible to create an innovative educational cluster in the region without close cooperation between universities and research structures, without the participation of authorities and investors.

For the formation and further construction of an innovative educational cluster, a project is required. Signs and conditions of the possibility of implementing this project in the Samara region are, first of all, the presence of a pronounced educational space, as well as related and auxiliary enterprises, research and development organizations, consulting firms, universities and other structures included in the clusters.

The scientific and innovative potential of the Samara region is represented by all components of the innovation system - academic and university science, scientific departments of industrial enterprises, innovative organizations - and is developed to a much greater extent than the average for the Russian Federation: the third is the specific number of personnel engaged in research and development; 70% more a greater proportion of innovatively active industrial organizations in their total number; more than twice the share of expenses for science and research in the GRP of the Samara region exceeds the similar Russian indicator.

## **PRACTICAL BASIS OF FORMING INNOVATIVE EDUCATIONAL CLUSTER.**

The approach to forming innovative educational clusters is widely being tested now in various regions of the Russian Federation and Samara region is included in this list. The main instrument of practical realization of this idea is to organize on the territory of the region the so-called National Educational Center.

In general, National Educational Center is a consortium of leading educational and research organizations with organizations of the real sector of the economy, the result of which is to obtain new competitive technologies and products with their subsequent commercialization, as well as training for solving major scientific and technological problems in the frame of the Russian Federation scientific and technological development prior goals.

The main idea is not only to train and retrain the professionals, but also the most important thing in such infrastructure creating will be the creation of new technologies, new products that could then be implemented and produced at enterprises in the scientific and educational center. The goal of such

structure creation is cooperation of science, education and business to create world-class demanded commercial projects and develop human resources to solve large scientific and technological problems.

The main tasks that should solve National Educational Center are:

- Integration of scientific and educational organizations with organizations of the real sector of the economy for conducting world-class research and development.
- Creation of technological innovations and preparation of new engineering teams capable of using developments in real production.
- Training for solving major scientific and technological problems in the interests of developing branches of science and technology according to the priorities of scientific and technological development of the Russian Federation.
- Obtaining new technologies and products and their commercialization.

The educational space of the Samara region includes 22 higher education institutions, 16 of which have the status of state and 6 - non-state. Of particular importance are such universities as:

Samara National Research University (Samara University);

Samara State Technical University (Samara Polytech);

Samara State Medical University;

Samara State Social and Pedagogical University;

Samara State University of Economics and others.

Three universities of this list were included in the National Educational Center of Samara region. The reason of gathering these educational institutions into NEC lies in main areas which are targeted by the center:

- new aerospace systems, technologies, materials and digital solutions;
- new medical technologies, materials, systems and digital solutions;
- advanced transport systems, materials, technologies and smart solutions.

By the moment National Educational Center of Samara region has 8 key partners representing the industrial foundation of Samara region.

## CONCLUSION

In conclusion, it should be noted that the Samara region has a high level of clustering, as powerful clusters successfully operate on its territory: aerospace, automotive, innovative, and several others. In the Samara region, there are all the necessary conditions for creating an innovative educational cluster, so necessary for the development of human resources in the context of national projects.

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## MEDIA REPRESENTATION OF TOURISM ON CROATIAN NEWS WEBSITES

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### ABSTRACT

The phenomenon of tourism has been the subject of various studies by many scientists and experts from all fields of scientific study, especially economics. Tourism is undergoing a profound change as a result of the dynamic socio-economic development of many countries where it represents an important link in the economic chain of a particular country. In this paper tourism is researched in the context of the media using the example of the Republic of Croatia. The aim of this paper is to research articles on tourism on the pages of the most widely read Croatian news websites in order to gain insight into the media representation of tourism in Croatia, its neighboring countries, Europe and the world from the point of view of Croatian national news websites. The paper is based on articles on tourism that were published in July and August on the following news websites: Index.hr, 24sata.hr and jutarnji.hr, which are the most popular news websites in the Republic of Croatia according to Alexa.com. The research period of the paper is from 1 July to 31 August 2019 as the greatest tourist movements in Croatia are recorded during those months. The research results showed that the Index.hr news website published the most articles on tourism; that the geographic focus of articles was mainly on Croatia; that tourism offer was the most well represented topic and that, taking into account the entire body of research, negative views and opinions with respect to the researched subject predominated.

*Keywords: tourism, the media, news websites, content analysis, Croatia.*

### INTRODUCTION

In the modern age tourism constitutes one of the most important industries in many countries and therefore has a considerable impact on economic development. The advent of tourism occurred in the second half of the 20th century, with its surge and an exceptionally dynamic growth and development (Čavlek *et al.*, 2011:23). Tourism also follows the socio-economic development in an effort to meet the ever-growing needs of a large number of tourism consumers (Weber and Mikačić, 2003:3). It has consequently become the subject of interest of many scientists and experts from all scientific areas of study, especially economics. This has resulted in many different definitions of the term tourism and

tourist. In order to define the term tourism the authors of the textbook "Tourism – economic fundamentals and organizational system" stated four criteria that need to be met: 1. spatial component, 2. characteristics of a tourism trip, 3. time component and 4. purpose of a trip (Čavlek *et al.*, 2011:25). From the many definitions of tourism this paper chose the UNWTO's (World Tourism Organization's) definition which states that "tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited" (Čavlek *et al.*, 2011:30). The second key term associated with the term tourism is tourism market, i.e. the place where the subjects of tourism supply and demand meet as its fundamental elements (Čavlek *et al.*, 2011:52). Tourism market comprises "a set of relations of tourism supply and demand created by the exchange of money-mediated tourism goods and services" (Weber and Mikačić, 2003:20). In scientific and peer-reviewed literature tourism is explained as a complex phenomenon, i.e. its complexity, reflected in its many goods and services, or rather the diversity of the tourism offer, is highlighted. Weber and Mikačić list the principal groups of tourism expenditure i.e. all the goods and services that the visitors of a particular destination can acquire to satisfy their tourism needs (tourism consumption): travel organization (e.g. provided by tour operators/travel agents), accommodation (e.g. hotel, hostel, holiday apartment, camp), meals (restaurant), transport (automobile, airplane, train, ship), activities (cultural, recreational, sports, entertainment), shopping (souvenirs, clothes, footwear, marketplace) and so forth (Weber and Mikačić, 2003:22). Of the tourism expenditure items listed we will highlight transport which is explained as an "integral component of tourism development" (Čavlek *et al.*, 2011:190) which allows tourists to reach their desirable tourist destinations (Čavlek *et al.*, 2011:189). According to Šolman there are six roles of transport in tourism: "it ensures the availability of a tourist destination by means of transport infrastructure facilities; it ensures "quality of travel" – a tourist has to experience their trip as comfortable, fast, safe and affordable (economical); it transforms a trip into a tourist experience - a tourist has to have a memorable experience of a tourism trip (e.g. a vacation), remember it as interesting, new and unforgettable and part of the tourism offer; it ensures tourist mobility within a particular tourist destination; it ensures that a tourism destination is well supplied – tourists spend and purchase at their destination, as well as during the inbound trip, which necessitates a timely, sufficient and efficient supply based on modern logistical principles (just-in-time, door-to-door etc.) and transforms special types of transport services into a "tourist attraction" in "tourist destinations" (Šolman, 2010:233). Along with transport, the complexities of the tourism market have resulted in the emergence of tourism trade intermediaries – travel agents and tour operators. Some of the most important functions of tour agencies are listed as follows: intermediary function (connecting tourism supply and demand), informative-consultative function (providing a wide range

of various travel information to tourists), advertising function (various promotional tourism materials) and organizational function (entrepreneurship of travel agencies) (Čavlek *et al.*, 2011:218-219).

As previously mentioned tourism affects the economic development of a country by providing the following economic benefits: an increase in income, employment, capital investment and public revenue as well as an incentive to regional growth and development (Čavlek *et al.*, 2011:237). After Croatia became a full-fledged member of the European Union on 1 July 2013 its positioning on the European tourism market increased. According to Hitrec, prior to its accession to the EU Croatia was somewhat isolated, i.e. the trends in Croatian tourism began to change after the EU and other integrations started to open to Croatia (Hitrec, 2000:118). Tourism was incorporated into EU legislation relatively late – in 1992 the Community Action Plan to Assist Tourism was adopted which features prominently as one of the documents serving to highlight the European dimension of tourism (Hitrec, 2000:120-121). In scientific and professional literature Europe is often defined as the most powerful global tourism destination and tourism represents the third economic activity in the EU, while the tourism industry directly employs around 5% of the workforce (Jasprica, 2012:116). The stated demonstrates the significant contribution of tourism to the economic benefit of a particular country. Croatia ranks as one of the most desirable tourist destinations in Europe and the world owing to its natural, cultural, historical, capital and human potentials, and all of the above mentioned underscores Croatia's importance to the EU in terms of tourism (Vuković, 2006:35).

The media have always exerted a powerful influence and hold on society. They influence all aspects of its activities by effecting changes. Due to the development of technologies today information spreads lightning fast and is immediately available to everyone in almost all corners of the world (Lekić *et al.*, 2015:145). The media nowadays also share a close connection with tourism, which is why today we are witnessing the significant role of the media in tourism, their correlation and the impact of the media on tourism. The development of information and communication technology often runs parallel to a discussion about the impact of modern social media on tourism. In his paper "Role of Media in the Promotion of Tourism Industry in India" Praveen Kumar classifies three types of media: 1. Communication channels through which news, entertainment, education, data or promotional messages are disseminated; 2. Broadcasting medium such as newspapers, magazines, TV, radio, billboards, direct mail, telephone, fax, and internet; 3. The growing popularity of the internet and social sites such as Facebook and Twitter, social media is now an important channel that allows messages to be spread to the public (Praveen Kumar, 2014:189). He also stresses the correlation between the media and tourism with regard to revenue and states that "Media contribute to 80% of tourism revenue and tourism contributes to 25% of media's revenue" (Praveen Kumar, 2014:189). In addition, he points out the complex relationship between the media and tourism noting that the media greatly influence a

traveler's choice of tourist destination (Praveen Kumar, 2014:189). Živković, Gajić and Brdar mention the social media as an important tool “for the analysis of tourists’ attitudes and this is confirmed by the increased purchases and recommendations to other users” (Živković *et al.*, 2014:759). When discussing the role of social media in the promotion of a specific tourist destination, their positive role is often highlighted. The internet is one of the most common and best sources of information on many things today, including tourism products, and has become one of the most important actors in the promotion of tourist destinations: “Each tourist organization, destination or company that wants to follow the course of time is present on the web. Besides internet pages and different sites, there is an increasing number of web portals, virtual magazines etc.” (Lekić *et al.*, 2015:147). Along with the positive aspects of tourism and those portrayed in the media there are the negative aspects or consequences of tourism development as well which include deviant behaviors, i.e. crime, among other things. Deviant behaviors and crime are often portrayed in the media and paint a poor promotional picture of a particular tourist destination.

With regard to the methodology of this paper several scientific articles will be mentioned which share similarities with the researched subject of this paper. In the article titled “Content Analysis of Newspapers' Travel New” the author elaborates the aim of the paper in the summary, which is the content analysis of newspaper articles about travel journalism in the most widely read Korean newspapers. The research period spanned 53 days in 2013, and the following categories were defined: type, theme, and writer of the news stories and the degree of promotional information in the news stories. Research results showed differences between newspapers which were reflected in the degree of promotional information in the news stories (Park, 2014). One of the research topics with respect to methodology that is similar to this paper is the analysis of the influence that the media i.e. media representation have on the choice of a tourist destination. It underscores the media influence on the creation of the image of a particular tourist destination which in turn impacts the tourists' decision-making process during the selection of a destination. A research was conducted, based on 162 international media websites, which studied the distribution of tourist destinations and established both positive and negative influences of the media on the image of a particular tourist destination (Scharl *et al.*, 2008). The media representation of tourism was also analyzed in an article titled “Newspaper Coverage of Tourism: A Content Analysis of the Daily Graphic and the Mirror” where the author, using the content analysis method, analyzed two Ghanaian newspapers: The Daily Graphic – the most reliable and widely read newspaper in Ghana and the Mirror – the most widely read Ghanaian weekly. The research comprised editions of the aforementioned newspapers from 2013 and 2014. Of the 628 issues of the Daily Graphic 104 issues were analyzed, as well as all the issues of the Mirror. The following types of news stories were researched: straight news stories, features, editorials

and letters to the editor. The research results showed that tourism accounted for only 184 articles, or 1.08% of all the articles analyzed, i.e. that the Mirror dedicated more column inches to the topic of tourism compared to the Daily Graphic. The topic of tourism included the following subtopics: cultural heritage, nature tourism, economic benefits, tourism development, environmental management and international tourism (Adolga-Bessa, 2015).

Although attempts have been made for years by scientists and experts to ensure a more even distribution of tourist arrivals throughout the year, the Republic of Croatia still records the greatest number of arrivals and overnights in the months of July and August. In 2017 there were 4 346 419 arrivals and 25 291 870 overnight stays recorded in Croatia in July, while in August 4 205 544 arrivals and 26 826 651 overnight stays were recorded in commercial accommodation. In 2018 a total of 4 333 377 arrivals and 25 918 243 overnight stays were recorded in July and 4 369 121 in August. According to the first release of the Croatian Bureau of Statistics: "In July 2019 a total of 4.3 million arrivals and 25.5 million overnights were realized in commercial accommodation facilities..." (Croatian Bureau of Statistics 2020b). According to the first release of the Croatian Bureau of Statistics on tourist arrivals and overnights: "In August 2019 a total of 4.7 million tourist arrivals and 27.8 million overnights were realized in commercial accommodation establishments..." (Croatian Bureau of Statistics, 2020c). The reported data on tourism turnover and realized overnight stays suggest that Croatia has a significant concentration of tourists in July and August.

| Month     | 2017      |            | 2018      |            |
|-----------|-----------|------------|-----------|------------|
|           | Total     |            | Total     |            |
|           | Arrivals  | Overnights | Arrivals  | Overnights |
| January   | 177 401   | 441 472    | 210 581   | 532 075    |
| February  | 209 536   | 470 265    | 219 167   | 485 251    |
| March     | 342 540   | 750 336    | 440 270   | 1 014 777  |
| April     | 915 770   | 2 550 428  | 950 572   | 2 513 405  |
| May       | 1 256 710 | 4 115 822  | 1 642 545 | 5 759 614  |
| June      | 2 526 241 | 12 030 104 | 2 627 838 | 11 850 435 |
| July      | 4 346 419 | 25 291 870 | 4 330 377 | 25 918 243 |
| August    | 4 205 544 | 26 826 651 | 4 369 121 | 27 050 659 |
| September | 1 978 713 | 9 899 830  | 2 190 867 | 10 186 069 |
| October   | 850 333   | 2 515 570  | 963 470   | 2 826 494  |
| November  | 307 824   | 662 801    | 372 356   | 781 182    |
| December  | 313 549   | 645 112    | 349 416   | 733 585    |

Table 1. *The total number of tourist arrivals and overnights in the Republic of Croatia in 2017 and 2018 (source: Croatian Bureau of Statistics, 2020)*

In July 2013 the Croatian Parliament adopted the Tourism Development Strategy of the Republic of Croatia until 2020 which states that the Republic of Croatia is a country marked by a pronounced seasonality and whose path to modernization is rendered more difficult by the political situation at the

end of the previous century (Tourism Development Strategy of the Republic of Croatia until 2020, 2013). It also notes the characteristics of Croatian tourism: “a lack of innovative and high quality products for visitors; growth based mainly on the expanding private accommodation sector; lack of high quality hotel offer combined with insufficient investment activity; poor connectivity by air and sea; static system of national marketing; too few branded destinations that are globally recognizable; inadequate tourist infrastructure at destinations; long-standing orientation of the local population towards seasonal trade” (Tourism Development Strategy of the Republic of Croatia until 2020, 2013).

## METHODOLOGY

The aim of the paper is to research articles on tourism on the pages of the most visited Croatian news websites in order to gain insight into the media representation of tourism in Croatia, its neighboring countries, Europe and the world from the point of view of Croatian national news websites. Bearing in mind that Croatia generates significant revenue from tourism and taking into consideration the role of the media in shaping public opinion, we wanted to analyze and enhance the understanding of the media representation of tourism on Croatian news websites by analyzing media articles on tourism. Even though Croatia devotes a great deal of effort to extending its season, the greatest concentration of tourists still occurs in the summer months, especially in July and August. We therefore chose the months of July and August 2019 as our research period. The paper is based on the articles on tourism that were published in July and August on the following news websites: Index.hr, 24sata.hr and jutarnji.hr, which are the most popular news websites in the Republic of Croatia according to Alexa.com. Articles were chosen based on the key word tourism, and were published during the research period from 1 July to 31 August 2019. The articles were analyzed using the method of quantitative content analysis in order to try and provide answers to the following research questions: what is the publication frequency of articles on tourism on the three most popular news websites in Croatia; what is the geographic focus of the articles (to what extent was the topic tourism in Croatia, compared to tourism in neighboring countries and the world); which topics in the field of tourism were represented in the body of research and to what extent; what views and opinions can be discerned from the articles and do the researched websites differ with regard to opinions and topics. Newspaper articles were categorized as follows: general, tourism offer, crime, policies, promotion, high prices, tourism turnover, soft news, employment and other topics. The definition of tourism offer from the Croatian language lexicon includes three groups of elements: “attractive elements (biotropic or anthropogenic goods that determine the tourist quality of a space, the degree of its attractiveness and the possibility of tourist validation, traffic or communication elements (means of transport and traffic infrastructure that serves to connect tourist destinations with potential markets) and receptive elements

(the measure of tourism development – hotel industry, restaurant business and all other establishments and services that serve tourists indirectly)” (tourism, tourism offer, 2020); crime – which can be defined as: “the commission of illegal and dangerous acts (misappropriation of assets, violation of physical integrity of another person etc.); crime (criminality, 2020). The term policy can be explained as: general management, planning and government of the activities of a particular area of social, national, economic, cultural etc. life (municipal policy; financial policy; monetary policy; social policy etc.; the policy of rural, island, tourism development (policy, 2020). The term promotion can be explained as: “a) the first presentation of a thing (film, book etc., b) one of the four elements of marketing whose aim is to create an awareness of the presence of certain goods on the market, generate interest in them, encourage consumers’/buyers’ preference for them etc., c) the promotion of an idea, attitude” (promotion, 2020). Tourism turnover referred to articles focused on the number of tourist arrivals and overnights. The category general included articles that did not focus on a specific topic but rather reported on tourism in general terms, while in the category other topics we included articles that were fewer than five, which we agreed upon as the minimum for the establishment of a category.

Criteria for a positive rating: positive with respect to the topic researched, tourism (e.g. extending the season, growth in tourism turnover, increase in overnights); criterion for a negative rating: negative with respect to the topic researched (e.g. devastation of tourism areas, decline in the number of overnights and tourism turnover, unfavorable political/legislative measures, such as an unfavorable VAT) with respect to tourism. The criterion for a positive/negative rating (both positive and negative aspect are represented, for example growth in tourism turnover as well as the risk of mass tourism). The criterion for a neutral rating (articles where neither a positive nor a negative opinion or view could be discerned, for instance the mention of tourism without any additional content).

## RESEARCH RESULTS

During the research period 350 articles on tourism that meet the previously enumerated criteria were published.

| News websites | July |        | August |        | Total |         |
|---------------|------|--------|--------|--------|-------|---------|
|               | N    | %      | N      | %      | N     | %       |
| 24sata.hr     | 44   | 12.57% | 30     | 8.57%  | 74    | 21.14%  |
| Index.hr      | 79   | 22.57% | 79     | 22.57% | 158   | 45.14%  |
| jutarnji.hr   | 55   | 15.71% | 63     | 18.00% | 118   | 33.71%  |
| Total         | 178  | 50.86% | 172    | 49.14% | 350   | 100.00% |

Table 2. *The total number of articles by each news website included in the research (source: author’s work)*

The 24sata.hr news website published the fewest articles compared to the other news sites, 74 articles (21.14%) in total. In July it published 44 articles (12.57%) and in August 30 articles (8.57%). Jutarnji.hr

published 118 articles on tourism in total (33.71%). It published 55 articles (15.71%) in July and 63 articles (18%) in August. The Index.hr news website accounted for the greatest proportion of articles in the body of research. It published a total of 158 articles (45.14%). In both July and August it published 79 articles (22.57%).

| News websites | 24sata.hr |        | Index.hr |        | jutarnji.hr |        | Total |
|---------------|-----------|--------|----------|--------|-------------|--------|-------|
|               | N         | %      | N        | %      | N           | %      |       |
| Croatia       | 70        | 94.59  | 143      | 90.51  | 102         | 86.44  | 315   |
| Region        | 0         | 0.00   | 3        | 1.90   | 3           | 2.54   | 6     |
| Europe        | 1         | 1.35   | 7        | 4.43   | 7           | 5.93   | 15    |
| World         | 3         | 4.05   | 5        | 3.16   | 6           | 5.08   | 14    |
| Total         | 74        | 100.00 | 158      | 100.00 | 118         | 100.00 | 350   |

Table 3. *Geographic focus of the articles (source: author's work)*

The articles of the body of research were divided based on the variable of the geographic focus. Table 3. shows that the articles were sorted not only into Croatia, Europe and the world but also neighboring countries because a significant number of tourists from neighboring countries visit Croatia. Viewed in total, the articles were focused mostly on Croatia, 90%, whereas a smaller proportion of the articles was focused on Europe, 4.29%, the world, 4.00% and neighboring countries, 1.71%. Analysis of the geographic focus by news websites from Table 3. shows a predominance of articles focusing on the Republic of Croatia; 24sata.hr, 94.59%, Index.hr, 90.51% and jutarnji.hr, 86.44%. The neighboring countries, Europe and the world are also significantly less widely represented in the individual analysis.

| Category   | crime | policies | prom o | tour. offer | tour. turnover | high prices | soft news | employ | general | other topics | Total |
|------------|-------|----------|--------|-------------|----------------|-------------|-----------|--------|---------|--------------|-------|
| 24sata.hr  | 14.86 | 24.32    | 10.81  | 21.62       | 14.86          | 4.05        | 5.41      | 0.0    | 2.70    | 1.35         | 100.0 |
| negative   | 100.0 | 50.0     | 12.50  | 37.50       | 54.55          | 100.0       | 0.0       | 0.0    | 0.0     | 100.0        | 50.0  |
| neutral    | 0.0   | 0.0      | 0.0    | 6.25        | 0.0            | 0.0         | 25.0      | 0.0    | 0.0     | 0.0          | 2.70  |
| pos./neg.  | 0.0   | 11.11    | 0.0    | 0.0         | 9.09           | 0.0         | 0.00      | 0.0    | 50.0    | 0.0          | 5.41  |
| positive   | 0.0   | 38.89    | 87.50  | 56.25       | 36.36          | 0.0         | 75.00     | 0.0    | 50.0    | 0.0          | 41.89 |
| Index.hr   | 20.25 | 21.52    | 0.63   | 11.39       | 18.99          | 8.86        | 4.43      | 4.43   | 4.43    | 5.06         | 100.0 |
| negative   | 90.63 | 55.88    | 0.0    | 38.89       | 60.0           | 100.0       | 28.57     | 85.71  | 57.14   | 75.0         | 66.46 |
| neutral    | 0.0   | 2.94     | 0.0    | 0.0         | 0.0            | 0.0         | 14.29     | 0.0    | 0.0     | 0.0          | 1.27  |
| pos./neg.  | 9.38  | 23.53    | 0.0    | 27.78       | 16.67          | 0.0         | 42.86     | 0.0    | 28.57   | 25.0         | 17.72 |
| positive   | 0.0   | 17.65    | 100.0  | 33.33       | 23.33          | 0.0         | 14.29     | 14.29  | 14.29   | 0.0          | 14.56 |
| jutarnji.h | 18.64 | 9.32     | 2.54   | 42.37       | 6.78           | 4.24        | 5.93      | 1.69   | 3.39    | 5.08         | 100.0 |
| negative   | 100.0 | 27.27    | 0.0    | 24.0        | 50.0           | 80.0        | 14.29     | 50.0   | 50.0    | 16.67        | 42.37 |
| neutral    | 0.0   | 9.09     | 0.0    | 0.0         | 12.50          | 0.0         | 14.29     | 0.0    | 0.0     | 0.0          | 2.54  |
| pos./neg.  | 0.0   | 18.18    | 0.0    | 16.0        | 25.0           | 0.0         | 14.29     | 0.0    | 50.0    | 33.33        | 14.41 |
| positive   | 0.0   | 45.45    | 100.0  | 60.0        | 12.50          | 20.0        | 57.14     | 50.0   | 0.0     | 50.0         | 40.68 |
| Total      | 18.57 | 18.0     | 3.43   | 24.0        | 14.0           | 6.29        | 5.14      | 2.57   | 3.71    | 4.29         | 100.0 |

Table 4. *Analysis of the articles by topic and tone (in %) (source: authors's work)*

Analysis of the topics represented on the news websites 24sata.hr, Index.hr and jutarnji.hr in the research period with respect to tourism (as presented in Table 4.) shows that the most widely covered topic was tourism offer, in 24.00% of the articles. This is followed by crime, 18.57%, policies, 18.00%, and articles on tourism turnover, 14.00%. Fewer articles were published on high prices, 6.29%, soft news, 5.14%, other topics that were fewer than five and therefore could not form a separate topic, 4.29%, general, 3.71%, promotion, 3.43%, and employment, 2.57%.

By analyzing the topic of the articles by news sites the research showed that the 24sata.hr news website wrote about tourism mostly in the context of policies, i.e. 24.32% of the articles. Tourism offer was the topic of 21.63% of the articles. More than half of the articles expressed a positive opinion, 55.25%, and more than a third of the articles, 37.50%, expressed a negative opinion. There were 6.25 articles with a neutral opinion, and no articles on tourism offer that voiced both a positive and negative opinion. On the topic of crime the 24.sata.hr news website published 14.86% of articles stating a negative opinion during the research period. The topic of promotion was represented with 10.81% of articles. The articles with a positive opinion predominated with 87.50%, compared to 12.50% of those expressing a negative opinion. Soft news in the context of tourism, covered by 5.14% percent of articles, was mostly written about in a positive tone, 75.00%. The remaining 25% of articles were neutral in tone. High prices were the topic of 4.05% of articles, all of which expressed a negative opinion. Tourism in general was the topic of 2.70% of articles, while the tone was positive in 50.00% of the articles and both positive and negative in the other 50.00%. The remaining topics account for 1.25% of the articles and the opinion they expressed was negative. The topic of employment was not represented. During the research period the Index.hr tourism coverage focused mainly on policies, 21.52%, and more than half of the articles, 55.88%, were negative in tone. There were 23.53% of articles that were both positive and negative in tone, 17.65% were negative and 2.94% were neutral in tone. Next come articles on crime which voiced a predominantly negative opinion, 20.25%. There were 9.38% of articles on crime that expressed both a positive and negative opinion. Tourism turnover was the topic of 18.99% of articles on tourism on the Index.hr news website. A negative view was put forward in more than half of the articles, 60.00%. In 23.33% of the articles the view was positive, and in 16.67% it was both positive and negative. The topic of tourism offer was represented in 11.39% of the articles; of those, 38.89% expressed a negative view, 33.33% a positive one and 27.78% of the articles presented both a negative and positive view. All the articles on high prices, 8.86%, expressed a negative opinion. Of the articles assigned to the category other topics, 5.06%, the majority expressed a negative opinion, 75.00%. In 25.00% of the articles both a positive and negative opinion can be discerned. The proportion of articles on soft news, employment and general was equal, 4.43%, but different views and opinions were stated. In articles on soft news both positive and negative opinions were most commonly expressed, 42.86%,

followed by positive and neutral with 14.29% each and 28.57% of articles expressing a positive opinion. Employment was mostly written about in a negative tone, 85.71%. A positive opinion could be discerned in 14.29% of the articles. On the topic general more than half of the articles voiced a negative opinion, 57.14%; 28.57% expressed both a positive and negative opinion, and 14.29% of the articles expressed a positive one. The jutarnji.hr news site published the most articles on tourism offer in the context of tourism, 42.37% of articles, most of which expressed a positive opinion, 60.00%. There were 16.00% of articles that expressed both a positive and negative opinion, and 24.00% a negative one. This is followed by the topic of crime, 18.64%, where all the articles were negative in tone. On the topic of policies, 9.32%, the articles were predominantly positive in tone, 45.45%, both positive and negative 18.18%, neutral 9.09%, and negative 27.27%. 6.78% of the articles reported on tourism turnover. Half of those articles expressed a negative opinion. 25.00% of the articles expressed both a positive and negative opinion. 12.50% were both neutral and positive in tone. 5.93% of the articles wrote about soft news in the context of tourism. More than half of the articles expressed a positive view. In the remaining articles other opinions are equally represented with 14.29% each. There were 4.24% of articles on high prices. A negative opinion predominated, in 80% of the articles. In 20% of the articles a positive opinion could be discerned. 33.33% of the articles expressed both a positive and negative opinion, whereas 16.67% expressed a negative opinion. With regard to the coverage of general topics, 3.39% of the articles stated a negative opinion, 50.00%. The topic of promotion was represented with 2.54% and all the articles voiced a positive opinion. The topic of employment was represented with 2.54% of articles, which expressed a positive opinion.

| Tone               | neutral | negative | positive/negative | positive | Total   |
|--------------------|---------|----------|-------------------|----------|---------|
| Number of articles | 7       | 192      | 49                | 102      | 350     |
| %                  | 2.00%   | 54.86%   | 14.00%            | 29.14%   | 100.00% |

Table 5. *Number of articles by tone (source: author's work)*

Table 5. suggests that, taking into consideration the entire body of the articles, a negative opinion could be discerned in 54.86% of the articles, both positive and negative in 14.00% of the articles, neutral in 7% of the articles and a positive one in 29.14% of the articles.

## CONCLUDING OBSERVATIONS

The phenomenon of tourism has been the subject of various studies by many scientists and experts from all fields of scientific study, especially economics. When we talk about tourism in Croatia, it is important to point out that it represents the most important link in the economic chain of Croatia, i.e. Croatia's economy is by and large based and reliant on the tourism industry, which is not an ideal situation. The current situation, i.e. the COVID-19 virus pandemic which has temporarily, as in other

countries around the world, halted tourist movements, can serve as an example. It should be mentioned that the development of Croatian tourism has changed since Croatia became a full-fledged member of the EU. Legislation has been introduced which regulates the framework within which tourism operates and Croatia has opened up to EU countries but also to other integrations. In 2013 a document was introduced in Croatia with great significance for the development of Croatian tourism titled Tourism Development Strategy of the Republic of Croatia until 2020, whose aim is to find solutions to reduce the seasonality of Croatian tourism as one of its negative characteristics, i.e. to extend the tourism season beyond the months of July and August.

The focus of the paper is placed in the context of the correlation between tourism and the media, described by much of the scientific and professional literature as the fourth branch of power, which shows the influence of the media on all aspects of social activity, including tourism. Today, with the development of information and communication technologies, new, modern forms of the media are created, such as social media, which influence the user's choice of a desirable tourist destination as well as the image of a particular destination. The body of research comprised the three most widely read news websites in the Republic of Croatia: 24sata.hr, Index.hr and jutarnji.hr. Of the 350 articles in total that were analyzed, the most articles on tourism were published by the Index.hr news website, 45.14%, while the 24sata.hr news website published the fewest articles on the topic, 21.14%, spanning the entire research period of the months of July and August 2019.

By researching the variable of the geographic focus articles were sorted into the following categories: those that focus on Croatia, the neighboring countries, Europe in a wider context and the world. The results of the research of this variable showed that the greatest proportion of articles dealing with this variable focused on the Republic of Croatia, 315 or 90% of the articles making up the total body of research. The fewest articles focused on the neighboring countries of the Republic of Croatia, only 6 articles or 1.71%. By comparing the number of articles published on each website it was established that the Index.hr news website published the most articles dealing with the geographic focus of Croatia, i.e. 94.59, whereas the 24sata.hr website published the fewest articles, 90.51%. It was also established that all of the researched websites had the most articles published in the category of Croatia as the researched geographic focus, while the values in other categories were different.

By analyzing the category of the topic represented on the researched news websites it was established that the topic of tourism offer was the most well represented, i.e. the proportion of articles was 24%, followed by crime with 18.57% and policies with 18%, and the fewest articles focused on employment, with 2.57% of the articles.

From the aspect of the news website the research showed that the 24sata.hr website published the most articles dealing with the topic of policies, 24.32%, and the fewest articles on other topics, 1.35%. On the

same website no article covering the topic of employment was published. As for the Index.hr website it was established that the most well represented topic was policies with 21.52%, followed closely by crime with 20.25% of the articles. The least well represented topic was the promotion of tourism with 0.63% of the articles. The jutarnji.hr news website focused most on the topic of tourism offer, with 42.37% of the articles, and least on the topic of employment in the tourism sector with a mere 1.69%.

By analyzing the opinion of each website with respect to the topic the research results showed that the 24sata.hr website expressed a wholly negative opinion in the categories of crime and high prices whereas the least negative opinions were expressed in the articles focusing on promotion, 12.50%. There was no negative opinion evident in the categories of soft news, employment and general. A neutral opinion was stated most often in the category of soft news, with 25% of the articles, and least often in the category of tourism offer with 6.25%. In all other topics a neutral opinion was not present. A positive/negative opinion was most present in the category of general, 50%, and least present in the category of tourism turnover, 9.09%. In all other categories there were no articles expressing a positive/negative opinion. A positive opinion predominated in the topic of promotion, 87.50%, and soft news with 75% of the articles, and was least present in articles on tourism turnover, 36.36%. There was no positive opinion expressed in the categories of crime, high prices, employment and other topics.

All the articles published on the Index.hr news website in the category of high prices expressed a negative opinion, i.e. 100% of them, and 90.63% of articles in the category of crime also expressed a negative opinion. The fewest articles expressing a negative opinion were published in the category of soft news with 14.29%. A neutral opinion was not recorded in other categories. A positive/negative opinion was most present in the topic of soft news, 42.86%, and least present in the topic of crime with 9.09%. In the categories of promotion, high prices and employment, no positive/neutral opinion was recorded. A positive opinion predominated in the articles on promotion, 100%, and tourism offer, 33.33%, while in the topic of soft news, employment and general it accounted for just 14.29%. A positive opinion was not recorded on the topic of crime, high prices and other topics.

On the jutarnji.hr news website all the articles on crime expressed a negative opinion, as did 80% of the articles on high prices, which was to be expected considering the crux of the matter. The fewest articles expressing a negative view were published in the category of soft news with 14.29%, while no articles voicing a negative opinion were recorded in the category of promotions. A neutral opinion was predominant in the articles on tourism turnover, but to a much lesser extent, with 14.29% and on tourism turnover, with 12.50%, while in the categories of crime, promotion, tourism offer, high prices, employment, general and other topics no article expressing a neutral opinion was recorded. A positive/negative opinion was most present in articles on general topics with 50%, and least present in soft news, 14.29%. No positive/negative opinion was recorded in the following categories: crime,

promotion, high prices and employment. The largest percentage of positive opinions was recorded in the category of promotions, in all articles, and in the category of tourism offer, 60% of the articles. No positive opinion was recorded in the categories of crime and general, while the fewest articles stating a positive opinion focused on the category of tourism turnover, 12.50%. A collective analysis of the views and opinions expressed on all the researched news websites suggests that, in total, in July and August 2019 on the 24sata.hr, jutarnji.hr and index.hr news websites a neutral opinion could only be discerned to a lesser extent, 7%. Less than a third of the articles expressed a positive opinion, 14% of the articles expressed both a positive and negative opinion while in more than a half of the articles a negative opinion could be discerned.

Considering the role of the media in society and their influence on public opinion, future research of media content within the framework of tourism should also focus on a qualitative content analysis in order to gain insight in the specific problems in tourism with regard to which the media expressed a negative opinion and thus encourage tourism management to reflect on them.

The current situation in the Republic of Croatia and the whole world caused by the virus COVID-19 impacts all industries, especially tourism, which is closely tied to foreign travel. It would therefore also be interesting to analyze articles on tourism in the media in the upcoming, in all likelihood very uncertain, tourist season in future research.

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## LEAN WAREHOUSING IN TIMES OF SMART FACTORIES – A MIXED METHOD STUDY

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### ABSTRACT

In contrast to Lean Warehousing (LW), the Lean Manufacturing approach is a commonly acknowledged and numerous successful implementations testify its effectiveness (Achieng (2018; Kotcharat, 2020; Srisuk et. al. 2020; Bukhari et. al, 2020; Sobanski, 2009). Representing a crucial research gap, LW has systemic flaws due to a lack of understanding and integration of corporate philosophy and culture, leadership and change management as well as, so far, not considered factors in Warehouse Management. This paper explores the relation of these factors to the level of Lean Maturity Index (LMI) and depict the *lean drivers* and *lean showstoppers*.

The study starts with a narrative literature review to identify the scientific gaps and factors, which affect the sustainability of Lean warehousing approach. The results will be synthesised by an initial model followed by research hypotheses and finally validated by further empirical research. The data collection process starts with conducting semi-structured expert interviews. The qualitative findings inform the following quantitative research stage. This research approach pursues the quantitative survey and qualitative case study methods to triangulate the research results, which leads to higher levels of reliability and validity (Weyers et al., 2011). The synthesis of both research results – the quantitative and qualitative research sequence – will then lead to a final model of Lean Warehousing. This methodology considers conducive to the development of new knowledge in the field as former studies either used case studies or quantitative surveys and not both.

*Keywords: Lean Thinking, Lean Warehousing, Lean Logistics, Lean Leadership, Warehouse Management System, Logistics 4,0, Smart Factory, Warehouse Excellence.*

### INTRODUCTION

Today's supply chains have to cope with volatile markets and extremely high customer demands in a highly competitive global market. Furthermore, global incidents like the latest outbreak of coronavirus disrupt supply chains and companies starting to mount over their stock as they afraid not to meet contractual obligations. On the same time supply chain partners have shortages on products whereas e-

commerce companies have shortages in personnel (Hasanat et. al, 2020; Fernandes 2020). In general, there is trend in consumer and purchase behavior to place smaller orders but more often, but during the corona pandemic quite the opposite has happened and consumers started to buy much more than they need for their daily life to pile up a safety stock for staple food and cosmetics etc. This all leads to an extreme increase in data information and goods movement in warehouses. Against this backdrop, traditional warehousing is no longer capable of tackling these challenges, but it is vital to include warehouses in the definition of a supply chain as managing inventories is a key component of effective supply chain management. (Patil et al., 2016) Production is faced with the same challenges as complexity in production systems which is increasing more and more (Hofmann, 2014). Reasons are increasing demand in quality, shorter lead times, shortened product life cycles and finally the high increase in variances and lot size one. (Hofmann 2014). Therefore, organisations are striving for low inventory in warehouses to reduce costs and increases profitability at the same time. (Holweng, 2013) Hofmann (2014) proclaims a four-step process mature model. Following this model production systems started in the early nineties with Computer Integrated Manufacturing (CIM) followed by the Lean Management or Lean Production integration to the segmented and fractal factory. The last step is the so-called industry 4.0 or smart factory. This last step could also be solved with the Lean philosophy and automation (Lean Automation). An analysis of digitalization effects on the usability of lean tools by Pekarčíková, M. et. al. (2019) allows to note the great influence and compatibility of lean tools with Industry 4.0 tools and is also confirmed by Stefanic, A., et. al. (2019). So not only logisticians in distribution centers but also manufacturing warehouses have to deal with this complexity to serve their customers (internal or external) best.

“The experience shows that a high performant logistics and fast material flow systems make the difference between success and failure especially in this sector (logistics). But it is also shown that the traditional distribution system is no more capable to meet the requirements and if then just with poor satisfaction” (ten Hompel and Schmidt, 2010, p. 18).

This means logistics are the backbone of global supply chains (Pejić et al., 2016) and companies need to have a high-performance IT infrastructure and specialised software (Warehouse Management Systems) in place to be connected with supply chain partners and to execute complex warehouse operations. WMSs can manage, monitor and optimise these complex warehouse and distribution systems and do track the whole internal material flow. Further, they are interacting with other software systems like SCE (Supply Chain Execution) systems, by which they are contributing to transparency and efficiency in the overall supply chain. However, the potential of warehousing is still underexploited, and in order to be compatible and profitable companies are looking for strategies and methods tapping the full potential. Also, customer's expectations regarding delivery speed and accuracy demand even more

accelerated and error-free logistics processes. "One efficient strategy for coordinating within and between firms with a focus on eliminating waste, achieving efficiency, or overburden and creating value in products is the concept of lean management." (Patil et al., 2016, p.354)

Therefore, the latest approach called "Lean Warehousing" adopts Lean Production theory onto warehousing. Through the introduction of lean techniques like 5S, KANBAN, MUDA and KAIZEN, the efficiency in warehouse logistics processes should be further improved.

The results of the literature review show that current WMSs are already supporting many of the lean methods on a tactical level, but the elements of analysing and implementing at a strategic level are missing. At the same time, numerous failed attempts in integrating Lean Warehousing point to systemic flaws such as the lack of philosophy and a corresponding leadership style. Only 5 to 7 percent of the companies that attempt to implement lean do so successfully. (Byrne, 2004 p. xxi) Garza-Reyes et al. (2018) investigated the adoption status of Lean Manufacturing in the Transport and Logistics sector. They come to the conclusion that the application of Lean in this specific sector is still relatively unknown especially compared to the manufacturing sector. They also found out that the barriers for implementing Lean are the "...organizational structure, misalignment between the goals of individuals and their companies as well as a lack of sustainment of a lean culture..." (Garza-Reyes, et al., 2018). Further reasons for failed attempts or not to implement are the lack of understanding the Lean Philosophy and a lack of knowledge and experience. Most of the companies therefore trust in technology-based tools to improve logistic operations.

## LITERATURE REVIEW

### *Warehouse Management*

"Process management is the essence of successfully managing warehouse operations. Mapping out the dynamic flow of goods and the accompanying value-added services (VAS) that occur in an active warehouse is the first step to attaining management success. Eliminating process variations and ensuring full employee understanding of the process - particularly their specific portion of process - is imperative. Establishing and tracking metrics along with the integration of available technology can enhance the efficiency of warehouse operations by enabling continuous improvements to processes" (Keller and Keller, 2014, p. 87).

This definition of Warehouse Management makes clear, that warehousing is a very complex area of business operations which need a permanent monitoring by measuring KPI's and also needs highly motivated operators to be enabled for a continuous improvement. Ramaa et al (2012) provide a more technical definition of WMS in stating that "...a warehouse management system (WMS) is a database driven computer application, to improve the efficiency of the warehouse by directing cutaways and to

maintain accurate inventory by reducing warehouse transactions.” The warehouse efficiency improvement was proved by case study (Ramaa, et al, 2012).

Richard (2014) has more simple definition of warehousing. “A warehouse should be viewed as a temporary place to store inventory and as a buffer in supply chains. It serves, as a static unit — in the main — matching product availability to consumer demand and as such has a primary aim which is to facilitate the movement of goods from supplier to customers, meeting demand in a timely and cost-effective manner” (Richard, 2014, p. 6). The definition of Richard seems to be simpler as he is not mentioning that it needs highly flexible and efficient process to meet the customer demands but makes clear that a warehouse does play a vital role in the supply chain and is not an isolated link.

#### *Lean Warehousing*

LW is based on the techniques of Lean Production (Spee and Beuth, 2012) with aiming at increasing efficiency and effectiveness of warehouse operations. This means it is using the same methods which are shown in following figure 2 and were used for Lean Production just with the application on warehouse processes. A simple definition for lean warehousing quoted by Chua and Katayama (2009, p. 3) “...would be a warehouse that is capable to operate in such manner that the throughput is optimized for warehousing activities”. Furmans and Schwab (2014) are stressing specifically the systematic and sustainable idea of lean warehousing in defining LW as “...leadership concept for continuous systematic analysis and sustainable, measurable improvement of warehouse processes.”

A further definition of Lean Warehousing by Dehdari et al. (2011) goes beyond the operational level and embraces the employee engagement explicitly.

#### *Lean Leadership*

Lean warehousing is a leadership concept. This concept aims at a permanent, systematic, analytic, sustainable, and measurable improvement of processes in the warehouse environment. This postulates a contribution of all employees and that employees are gaining awareness of perfection in each corporate operation. (Mustafa, M.S., 2015; Ghimire, M., 2017. Sobanski, E. B., 2009) Besides the aforementioned lack of conceptualizations, Lean Warehousing is afflicted with mistrust, prejudices and lack of knowledge about the real lean philosophy (Kuther and Schaaf, 2013; Dombrowski et al., 2012). Hines et al. (2008) explain this by the Lean Iceberg model with the visible top of an iceberg as lean technology, tools, techniques and processes and the invisible part of the iceberg under the waterline representing strategy alignment, leadership behavior and engagement. This model implies the gap of corporate culture aspects, but ignores that the current Warehouse Management technology is also not sufficient for a sustainable Lean Warehousing introduction Womack and Jones (2003, p. 10) also point to the strategic aspect of Lean Warehousing by stating: “... managers had drowned in techniques as

they tried to implement isolated bits of a lean system without understanding the whole." The Toyota Production System (TPS) philosophy is to see the value of produced goods or services from a customer perspective as a starting point of all improvements.

Womack and Jones (2003) call this the first principle of lean. The whole organisation including the senior management has to focus on the place, where the value is created - the shop floor. Arndt (2015) pointed out that to make Lean a core part of the corporate culture a company also has to follow the strategic management model bottom-up. Chandra (2013, p. 36) states in this context: "Since the entire organization is affected, cultural assumptions need to be addressed in order to ensure compliance with new organizational requirements. To deal with this gap, a transformational leader or "Lean Champion" is required (Vitalo et al., 2009; Hobbs, 2011; Alukal, 2006).

## **METHODOLOGY**

This study will be conducted by the view of a critical realist, which combines positivism and phenomenology to gain a comprehensive picture of the Lean Warehousing theory as earlier studies used mainly structured questionnaires. However, "...the critical realist's position is that the social world is constantly changing is much more in line with the purpose of business and management research which is too often to understand the reason for phenomena as a precursor to recommending change" (Saunders et. al, 2009, p.115). The critical realist, also recognises the importance of multi-level study (e.g. at the level of the individual, the group and the organisation) and of a greater variety of structures, procedures and processes (Saunders et. al., 2009).

The study started with a narrative literature review gathering data about Lean Warehousing methods and the standard functions of WMS, corporate philosophy and culture (Mann 2015; Hermalin, 2013), change management (Kotter and Seidenschwarz, 2013; Doppler and Lauterburg, 2014) and transformational leadership (Vitalo et al., 2009; Liker, 2011; Givens, 2008) to identify the scientific gaps. The search was using several internet search engines like Metager, WorldCat as well as databases like EBSCO, ProQuest and Emerald and conducted secondary research in the libraries of the University of Nicosia and at the University of Applied Sciences Landshut.

The results were then synthesized by an initial conceptualization and research hypotheses to be validated by further empirical research. The data collection process starts with conducting a pre-determined sample size of 15 semi-structured expert interviews with logistics managers, WMS vendors and consultants specialised in lean transformation. This means once more a using triangulation in this research by mixing the groups within the same sample and same sample method. In each group five interviews are conducted as the qualitative research focus on the views of less people in greater depth (Curry et al., 2009). As a specific research objective for the qualitative stage this procedure is promising

to enclose eventually missing factors for a lean warehousing model which are not mentioned in the literature until now. The sample size is in line with Baker and Edwards (2012), Denzin (2012) and Back (2012) who are following the data saturation pattern that the majority of information comes from initial interviews and less and less new information by later interviews. The transcription of the voice records will be analysed with software programs like Nvivo or MaxQdata in form of a content analysis.

The qualitative findings will then inform the following quantitative research stage and eventually missing factors will be incorporated into a structured questionnaire to investigate the general research question and to tackle the research objectives. The results will be analysed with SPSS (regression analysis) and will disclose the specific demands and reasons of failed lean implementations for the groups manufacturer, suppliers and logistics service provider to consider the relation to multiple stakeholders.

This research approach pursues the quantitative survey and qualitative case study methods to triangulate the research results. This combines the respective advantages of both methodologies and will lead to higher levels of reliability and validity (Weyers et al, 2011).

The synthesis of both research results - the quantitative and qualitative research sequence - will then lead to a final model of Lean Warehousing.

This methodology is considered conducive to the development of new knowledge in the field as the aforementioned studies only used observed case studies or surveys respectively.

## FINDINGS AND DISCUSSION

### *Qualitative research – Expert Interviews*

The digital recorded interviews were uploaded to MaxQdata for analysis. Instead of a full transcription of all 12 interviews each interview was transcribed through colored markings on the audio spur. This technique is called “Direct Audio Transcription” and has the advantage that latter analysis of the data is supported by various statistical methods. For analysing it is not important to have the detailed context of speak but moreover regards to the thematically content. Similar to the method of selective transcription it is suited for researches with huge amount of data (Laforest, 2009; Kurzrock, 2014). As the interviews with 12 interview partners resulted into nearly 14 hours of voice data the method of summarising transcription is best suited even more as the categories respectively research objectives were already built. The transcription in comparison to the traditional transcription process itself is still very intensive as the researcher listens to short sections of the audio records again and again to define the codes and sub-codes and to assign the heard section accordingly. One answer could fit to more than one code or sub-code. The image below shows one example of a section which is marked in two different colors (code groups) and three markings in total. In this case the marked section respectively

the answer of the interviewee is pointing as well to the codes *Enterprise Size, Economical Reasons* as to *Organisation* and therefore will be counted one times for each code group.

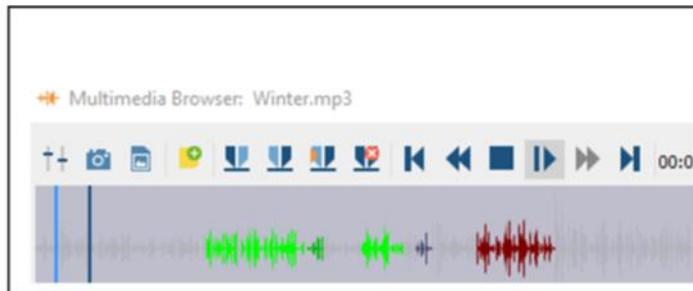


Figure 1. Example of "Coding" an audio data file of an interview

The identified factors from the literature review build the framework for the codes and it turned out that they could be clustered into 6 major codes and several sub-codes. During the procedure of coding some new factors were found which has to be considered.

| Codes                                       | Sub-Codes   |
|---|---|
| Warehouse Management                        | WMS (1), Automation (2); Warehouse Techniques (3), Missing Functions (4)  |
| Applicability of Lean methods in warehouses | Training (1), Not or just partially applicable (2), Applied Lean Methods (3), Publicity of Lean (4), State of Research (5), Complexity of Lean Methods/Philosophy (6)   |
| Internal Factors (Enterprise)               | Change Management (1), Industry sector (2), Size (3), Asymmetric relations (4), Organisation (5), Culture (6), Product (7), Strategy (8), Leadership Style (9), Employee (10)   |
| External Factors (Stakeholder)              | Supplier (1), Environment (2), Society (3), Competitor (4), Customer (5)  |
| Lean Showstopper                            | KPIs, (1) No support from Top Management (2), Cost intensive (3), Departmental thinking (4), Outsourcing of logistics (5), organization (6), High margins (7), Employee knowledge (8), Weakness of logistics department within the organization (9)   |
| Lean Drivers                                | Quality (1), Transparency (2), Organisation (3), Flexibility (4), Standardised processes (5), Reduced throughput-times (6), Reduced waste (according lean philosophy) (7), Reduced stock (8), Economical reasons (9), Optimised production (10), Turnover rate (11), Optimised usage of warehouse spaces (12) |

Table 1. List of Codes and Sub-Codes

The table below shows the result of the interviews per code and sub-code. Thereby these figures being an indicator about the power of influence each factor or independent variable has on the dependent variable Lean Warehousing Maturation (LWM).

| Code  | Sub-Code |    |    |    |    |    |   |    |    |    |    |    | Total No. in Code-Group |
|---|----------|----|----|----|----|----|---|----|----|----|----|----|-------------------------|
|   | 1        | 2  | 3  | 4  | 5  | 6  | 7 | 8  | 9  | 10 | 11 | 12 |                         |
| Warehouse Management                        | 25       | 37 | 2  | 34 | -  | -  | - | -  | -  | -  | -  | -  | 98                      |
| Applicability of Lean methods in warehouses | 9        | 15 | 55 | 12 | 5  | 14 | - | -  | -  | -  | -  | -  | 110                     |
| Internal Factors (Enterprise)               | 8        | 43 | 13 | 3  | 15 | 20 | 5 | 9  | 14 | 8  | -  | -  | 128                     |
| External Factors (Stakeholder)              | 8        | 2  | 1  | 5  | 13 | -  | - | -  | -  | -  | -  | -  | 29                      |
| Lean Showstoppers                           | 1        | 15 | 13 | 7  | 16 | 24 | 5 | 19 | 8  | -  | -  | -  | 108                     |
| Lean Drivers                                | 3        | 3  | 16 | 6  | 6  | 3  | 3 | 3  | 13 | 3  | 1  | 4  | 64                      |

Table 2. Total Number of Codes and Sub-Codes

The ten strongest sub-codes which seems to have a strong influence on LWH are:

(1) Applied Lean Methods with (55 codes)

All interviewees knew about several lean methods like 5S, KANABN, milkrun, supermarket etc. and report about how they are practicing it in daily operation. This means Lean in general is commonly known and accepted and practised at least some single methods. However, each of the terms is a lean method to stabilise lean once it is introduced. This could be seen as a hint, that Lean is seen as toolbox with methods and not a philosophy as no method for analysis or procedure was mentioned. Furthermore, this indicates that there is just a superficial knowledge of Lean methods and no knowledge about Lean as a holistic philosophy as no methods for the management level were mentioned.

(2) Industry sector (43 codes)

Obviously, the industry sector is very strong factor to implement lean sustainable. The automotive sector is still seen as a one of the leading industries with deep knowledge in lean manufacturing and therefore predestinated to establish LWH as well. Further industries with good preconditions are industries with strict legal guidelines like pharmaceutical, chemical or food industry and also the mechanical engineering industry. Processing industry, wholesale, logistics services as well as fashion and textile traditionally have in general no or even small knowledge of lean methods.

(3) Warehouse Automation (37 codes)

“Its easier to invest in a machine or in automation as the output and the productivity is calculable and predictable. Therefore, managers tend to shy away from investing in people and a lean initiative, because the return on invest (ROI) is unknown.” This statement by an interviewee who worked as a manager for an automotive supplier reflects the view of all interviewees who gave similar answers. Of course, it is given, that an automation is suited to increase productivity, but probably not the best in the long term. Automation in warehouses are most often inflexible systems like a mini-load or a high-bay warehouse in combination with conveyors. These kinds of systems are not easy to adapt to new processes and therefore often stay in the same state over years.

(4) Missing Functions in WMS (34 codes)

By literature review several aspects could be identified like graphical control and process workflows, prioritising and traceability of orders, Displaying of relevant indicators (KPI's), visualisation (e.g. Andon-Boards), Shop-floor-Management, CIP integration, Knowledge platform (WMS Tutorial, Lean Methods, Warehouse Management etc.). These lacks were confirmed by most of the interviewees.

(5) WMS (25 codes)

Beside the functional lacks in the last section, there are also some general lacks. “Sometimes WMS are extreme customized and not standard anymore and this makes it difficult to change settings regarding kaizen. (Interviewee. 8) Another statement from Interviewee 7 confirms this in stating that “...process optimisation takes place during the first WMS implementation and after that moment just little changes are done for about 10 years.” But in contrast to the lack of functionality there it was also mentioned that “WMS software is providing all functions it needs for a lean warehouse and could be adopted from time to time but it isn't used.” (Interviewee 7) Another statement also points in that direction in stating that “...most often the smaller software vendors respectively systems are best of breed but the IT manger decides to go for the big names.” (Interviewee 9)

So, there is not a common view about WMS. There are positives as well as negative aspects, but due to this controversial point of views it is definitely a topic that matters and should be focused for an LWH model.

(6) Organisation – as Showstopper (24 codes)

Organisation in this context was mentioned as number one reason to be a showstopper for LWH. This underpins numerous sources (e.g. Liker, 2011) which all claim that Lean Philosophy is a holistic approach and should be the guiding “North Star” for a company and this would also mean to adjust the organisation accordingly. This could be parallel structures to the formal

organization like teams, project groups in a matrix organization or new functional cooperation networks or even internal ventures. (Smeds, R. 1994)

(7) Culture (20 codes)

Also, the sub-code culture is a basic variable for a sustainable LWH. In a nutshell “Culture is key to lean” (Interviewee 3) but therefore a “...change of mindset about logistics as a crucial element in business must take place.” (Interviewee 11).

Concerning Koenigsacker (2013) culture is straight linked to leadership as the organisational culture is defined by the behaviors or habits of its leaders and therefore the code organisation points also to leadership. When you add lots of these “What they do’s” together, you see the fabric of a new culture.” (Koenigsacker, 2013 p. 94)

(8) Employee knowledge (19 codes)

The employee knowledge is also seen as an important factor as most of the interviewee’s responses say that the people on the shop floor are mostly “...less educated people” (Interviewee 1) which was confirmed by Interviewee 7, Interviewee 9, Interviewee 11 and Interviewee 3. Interviewee 4 spoke about workers who “...are overburdened and have not the knowledge and competence in lean methods. Furthermore, companies very often have a temporary worker (Benvegnú, 2018; Moric, 2020) at the logistics operation and according interviewee 3 and Interviewee 9 these people also don’t have the knowledge about the products and processes and don’t see the full context. In addition, they are not motivated to question the existing processes. Moreover, there is not only a lack in the blue-collar level but also in the white-collar level. Interviewee 5 even sees a general lack of competence and knowledge in the companies whereas Interviewee 7 claims that manager are afraid of the change and do not listen what the consultants and specialists tell them to do. On the other side “Managers don’t have the deep knowledge in operational procedures and also don’t know the lean approach” (Interviewee 10).

So, all these statements point to a lack of knowledge about the lean philosophy throughout the whole company and also confirm the lack in culture which is open to changes and allows new ideas even if they are not fruitful at the end.

(9) Organisation – as Lean-Driver (16 codes)

The factor organisation could also be a big driver for lean if you find corresponding conditions in a company like a separate department for SCM and logistics and ideally even at the board of directors. (Interviewee 7, 1, 4 and 12). This indicates that concerns have and advantage towards SME’s as they usually don’t have such a wide range of management positions. (Interviewee 7 and 6)

(10) Outsourcing of logistics (16)

“Lean prevents outsourcing” (Interviewee 1) and would also mean to lose control and knowledge as logistics is “...important for the whole process understanding” (Interviewee 1). Regardless “Outsourcing is still very common” (Interviewee 11) because “logistics processes getting too complex and companies start to outsource this task to 3PL provider” (Interviewee 5). 3PL “...have established lean principles...” (Interviewee 7) as the companies who assigned these tasks to 3PL and expect high quality and low prices (Interviewee 10). Sometimes quite the opposite is the case as the customer dictates how the processes have to look like and which software they have to use. Outsourcing could also be a big pressure for the internal logistics department as they have to cope with them in order not to risk the job. (Interviewee 7)

*Quantitative research – Online and paper-based Survey*

Before an online questionnaire is distributed, it is essential to inspect the questions derived from the literature review and it is constituting the survey instrument in order to gain its validity and reliability (Brace, 2018). Reliability threats like subject or participant error, observer error, subject or participant bias and observed bias were addressed through a test pilot as recommended by Robson and McCartan (2016).

In total 127 usable responses were obtained. Based on similar studies the sample size of 127 was considered acceptable to draw conclusions and link them to the findings from qualitative data sampling in the pre-executed expert interviews. Observer bias and error were not applicable to this survey as the questionnaire was designed with questions for which interpretation was not possible with fixed alternative answers. Thus, observer bias was irrelevant for this study (Binti et al., 2016). The table below shows the statistics of the sample concerning company size, warehouse type, industry sector and the LMI.

| Company size              | % in sample | LMI  |
|---------------------------|-------------|------|
| SME                       | 25,20 %     | 2,16 |
| concern                   | 73,23 %     | 2,43 |
| "don't know"              | 1,57 %      | 0,00 |
| Market /Strategy          |             |      |
| national                  | 10,24       | 1,46 |
| international             | 23,26       | 2,60 |
| multinational             | 0,00        | 0,00 |
| transnational             | 0,00        | 0,00 |
| global                    | 28,35       | 2,31 |
| "don't know"              | 37,80       | 2,25 |
| Industry Sector           |             |      |
| Pharmaceutical and Pharma | 1,57        | 1,57 |
| Textile and Fashion       | 4,72        | 2,40 |
| Machine Building          | 22,05       | 2,36 |
| Logistics                 | 26,77       | 2,26 |
| Consulting                | 0,00        | 0,00 |
| Food, Drinks and Tobacco  | 8,66        | 2,72 |
| Automotive                | 11,81       | 1,93 |
| Distributor               | 11,02       | 2,21 |
| Processing                | 4,72        | 1,67 |
| Electronics and other     | 8,66        | 2,64 |
| Warehouse Type            |             |      |
| Distribution warehouse    | 19,42       | 2,25 |
| Retail Warehouse          | 17,15       | 2,19 |
| Production Warehouse      | 25,24       | 2,38 |
| Transshipment Warehouse   | 11,33       | 2,20 |
| Central Warehouse         | 16,50       | 2,16 |
| Buffer Warehouse          | 10,36       | 2,44 |
| Automation Grade          |             |      |
| Grade 1                   | 8,66        | 1,73 |
| Grade 2                   | 8,66        | 1,45 |
| Grade 3                   | 23,62       | 2,07 |
| Grade 4                   | 38,58       | 2,59 |
| Grade 5                   | 18,90       | 2,58 |

Table 3. *Sample Statistics in comparison to LMI*

The analysis of the sample statistics was evaluated and resulted into some first findings by comparing the median value for the LMI. Concerns do have a higher LMI than SME's and also companies with an international market strategy do have the highest LMI with a grade of 2.60 in comparison with companies doing business only in the national market. Concerning the industry sector surprisingly companies within the food, drinks and tobacco sector have the highest LMI with 2.72a, although literature and the interviewees claimed the automotive industry should have the best preconditions due to the historical advantage that Lean philosophy was created by Toyota. Also, Electronics, Textile, Logistics, Machine Building industry and Distributor have a higher LMI. Just pharmaceutical and chemical and processing industry have a lower LMI. In the category of warehouse type the level of LMI is more or less the same and fluctuates between 2.16 and 2.44. This means the warehouse type seems not to be a crucial indicator for a high or low LMI. In contrast the automation grade there is a clear relation to the LMI. The higher the automation grade the higher the LMI.

*Reliability and Validity*

Reliability analysis was applied by examining the survey values of Cronbach's Alpha.

| Reliability Statistics |                                    |              |
|------------------------|------------------------------------|--------------|
| Cronbachs Alpha        | Cronbachs Alpha standardised items | no. of items |
| ,804                   | ,796                               | 33           |

Table 4. *Sample Statistics in comparison to LMI*

Values greater than 0.9 means that the survey achieved an excellent consistency. Values above 0.7 are generally considered as acceptable. The Cronbach's Alpha here reached 0.804 which confirms a good reliability. Setting the confidence interval at 95%, the results of ANOVA test (Table below) provides an F-test value for the null hypothesis. The result of  $F = 1.582$  for the independent variables proves a relation to LWH satisfaction grade. However, based on the analysis, Null hypothesis can be rejected. A further test like T-Test is not necessary.

| ANOVA           |                           |          |                |        |        |       |
|-----------------|---------------------------|----------|----------------|--------|--------|-------|
|                 | sum of squares            | df       | median squares | F      | Sig.   |       |
| between persons | 692,252                   | 126      | 5,494          |        |        |       |
| within persons  | between items             | 2078,037 | 32             | 64,939 | 60,172 | 0,000 |
|                 | not standardiesd residual | 4351,417 | 4032           | 1,079  |        |       |
|                 | total                     | 6429,455 | 4064           | 1,582  |        |       |
| total           | 7121,707                  | 4190     | 1,700          |        |        |       |
| total median    | 2,87                      |          |                |        |        |       |

Table 5. *Sample Statistics in comparison to LMI*

However also explanatory analysis was conducted to search for outliers within the sample to check for validity and to explain the reasons behind this. Outliers would influence the standard error and also the t-test and could finally lead to a survey which is not significant.

The result of the explanatory analysis in SPSS detected in total 15 variables with outliers which are marked with an "\*" in the box plots but for no variable the standard error crossed the critical value of 0,7 or higher. The maximum number of outliers for a variable were 6 participants from a total population of 127, which means a maximum deviation of 4,57%. An analysis of the outliers did not show a specific pattern and it was deduced that the answers are realistic and right even the statistic says they are extreme values. As they also do not affect the significance of the whole sample it was decided to include these outliers to achieve the full perspective and consider all data. Moreover, these outliers could also help to understand the correlation to the independent variable *Lean Warehousing Maturity Index* (LWI). The outliers were found in the sections *automation grade*, *warehouse management*

system, *internal stakeholder* and *external stakeholder*. In the sections *company size*, *industry sector*, *company strategy* and *applicability of lean warehousing* there were no outliers.

Figure 2. Example for a box-plot with variable 18 (automation grade) in relation to dependent variable 62 (LMI)

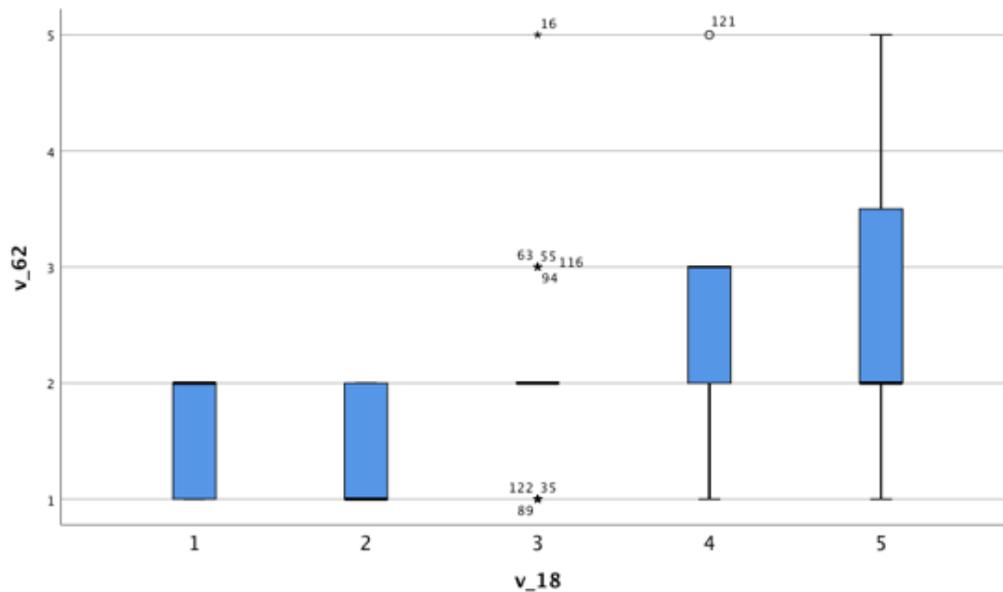


Figure 16: Example for a Box plot variable 18 (automation grade) in relation to dependent variable 62 (LMI)

For an overview and explanation, the data were clustered in median values for the group which reached the highest level (5) in LWHMG, the group with the lowest value (1) and a theoretical group with the overall median value. The table below shows all results which will be discussed and explained in more detail in the following.

Table 9: Exploratory analysis of median values comparing highest and lowest group in LWHMG

| section               | variable abridgement | highest LWHMG (lvl 5) | Overall median | lowest LWHMG (lvl 1) |
|-----------------------|----------------------|-----------------------|----------------|----------------------|
| automation grade      |                      | 4,4                   | 3,5            | 2,7                  |
| wms satisfaction      |                      | 3,4                   | 2,7            | 1,9                  |
|                       | KPI's                | 4,6                   | 3,1            | 2,0                  |
|                       | missing functions    | 3,4                   | 2,7            | 1,7                  |
|                       | configuration        | 2,8                   | 2,6            | 1,8                  |
|                       | support              | 2,6                   | 2,4            | 1,9                  |
| applicability of lean |                      | 2,0                   | 2,2            | 2,2                  |
|                       | cost intensive       | 1,8                   | 2,6            | 3,0                  |
|                       | lean methods applied | 5,0                   | 3,5            | 1,9                  |
|                       | lean too complex?    | 1,6                   | 1,7            | 2,3                  |

|                  |  |     |     |     |
|------------------|--|-----|-----|-----|
|                  | LWH not fully researched                           | 1,2 | 2,2 | 1,9 |
|                  | LWH has no effect on overall SC                    | 1,2 | 1,5 | 1,8 |
|                  | low employee knowledge and cost intensive training | 1,2 | 1,8 | 2,1 |
|                  | external trainer needed                            | 2,0 | 2,1 | 2,6 |
| internal factors |  | 3,0 | 3,1 | 3,4 |
|                  | support by top management                          | 4,6 | 4,0 | 3,9 |
|                  | outsourcing  | 1,4 | 2,9 | 2,0 |
|                  | strength of logistics dep.                         | 4,0 | 3,5 | 3,1 |
|                  | company organisation                               | 3,0 | 3,4 | 3,3 |
|                  | change management                                  | 1,4 | 3,3 | 3,0 |
|                  | employee motivation                                | 4,4 | 3,7 | 3,1 |
|                  | culture  | 4,0 | 3,7 | 3,1 |
|                  | leadership style                                   | 3,4 | 4,1 | 3,5 |
|                  | company size                                       | 2,2 | 2,7 | 2,8 |
|                  | company strategy                                   | 4,0 | 3,6 | 3,6 |
|                  | product  | 1,8 | 2,9 | 3,0 |
|                  | departmental thinking                              | 2,2 | 3,3 | 3,0 |
| external factors |  | 2,5 | 2,9 | 2,8 |
|                  | high margin  | 2,0 | 2,8 | 2,7 |
|                  | asymmetry  | 1,0 | 3,2 | 2,8 |
|                  | competition  | 3,0 | 2,9 | 2,6 |
|                  | society  | 2,4 | 2,5 | 2,4 |
|                  | market/industry sector                             | 3,6 | 3,1 | 3,1 |
|                  | environmental idea                                 | 2,2 | 2,3 | 3,5 |
|                  | customer   | 2,8 | 3,5 | 3,5 |

Table 6. *Explanatory Analysis*

Explanation per section:

1. Automation grade

The values show a higher grade for automation in the best group which clearly predicate a correlation between this independent variable on LHWMG. The median value is also higher than the worst group which means that the higher the automation grade the higher the LHWMG. But this effect has to be analysed in more detail in a further detailed survey, as it did not consider when the automation was established. Usually before such invest is done the company conducts a detailed analysis of the internal logistics and the material flow either by internal or external consultants. This means during the introduction of automation system also the processes will be analysed and most often new designed. So eventually the gained improvements are only last over a

short period of time and are not consequently questioned and improved by a continuous improvement (CIP) according the LWH philosophy. Bucki (2019) investigated Lean Warehousing on cost-based approach and concludes that manufacturing cost can be lowered by replacing human labour by robots which pays off in a defined period of time, but another option would be reducing fixed and operating costs by means of lean tools without doing costly investments.

## 2. WMS satisfaction grade

The overall median value for this section and all single median values for each subcategory clearly indicates a higher grade of satisfaction of the WMS within the best group of LWHMG compared to the lowest group. This could be reasoned by having a state-of-the-art WMS in use, which is suited to manage and monitor the warehouse processes. The sub-category *KPI's* featuring a big difference in the values 4.6 and 2.0 and also in the sub-category *missing function* (3.4 versus 1.7). This implies that companies with a higher LWMG do have more modern WMS or at least with updates and adaptations on a regular basis in use which are able to meet the requirements better and help to support to apply methods according the LWH philosophy. This should be confirmed by further surveys.

## 3. Applicability of LWH

This section has sub-categories where a low or a high value could be interpreted differently. Therefore the overall median in this section is not suited for a global relation to LWHMG. For the question if the implementation of LWH philosophy is cost intensive the best group negates this statement with a value of 1.8 whereas the worst group tentative support it (value 3.0). In contrast to that the sub-category *lean methods applied* shows the highest value of 5 for the best group and comparable extreme value of 1.9 for the lowest group. This example confirms also validity in the data as the group who claims to have reached LWHMG level 5 also have the highest level of applied lean methods and inverse ratio for the group with the lowest LWHMG. An interesting result is that both groups don't think that the LWHM philosophy is too complex to be not applied. This underpins the hypothesis that all companies could and should apply LWHM to improve the overall efficiency for their warehouses. Further both groups think LWHM is more or less full researched. Also, both groups confirm that it is worth to strive for a holistic LWHM implementation as it has significant improvement effects also in context with the full supply chain. Studies from Hadrai (2019) and Vanichchinchai (2019) confirms this positive relationship between supply logistics, and competitive performance (operational) and supply performance. Hadrai (2019) further determined that lean processes are partially mediating this relationship and showed the importance of internal and external processes of companies' operations in an integrated manner

in which supply chain management acts through key internal processes to impact competitive performance.

#### 4. Internal Factors

For the external factor there is no general pattern, but between the group with the lowest and the highest LMI partially there are great differences. Some factors which are rated very high in the group of highest LMI are *Support by Top Management*, *strength of logistics department*, *employee motivation* and *culture* whereas the other group rated these factors relatively low. IN contrast some factors which the group with the lowest LMI rated some factors very high e.g. *product* and *change management* which allows to draw the conclusion, that the companies with a lower LMI do underestimate the influence of the relevant factors and rates other factors to high.

#### 5. External Factors

In this section nearly all factors were rated higher in the group with the lowest LMI. This pattern indicates that in general external factors do not have as much influence on the LMI. In big contrast the factors *asymmetric commercial relationships* were rated with 2,8 for the group with the lowest LMI opposite to 1.0 for the group with the highest LMI.

### *Multivariate Analysis*

In order to determine the relationship between dependent variable and the set of multiple independent variables a multivariate linear regression analysis is conducted. This procedure is used to determine the influence of independent variables on dependent variable and to what extent or even which variable(s) may even have no relation to the dependent variable. The general formula for the regression analysis is:

$$Y = F(x_1, x_2, \dots, x_n) + e$$

| Model Summary |      |          |                    |                            |                      |               |
|---------------|------|----------|--------------------|----------------------------|----------------------|---------------|
| Model         | R    | R-Square | Corrected R-Square | Standard Error of Estimate | adjusted in R-Square | adjusted in F |
| 1             | ,880 | ,775     | ,701               | ,503                       | ,775                 | 10,539        |

Table 7. Summary of of multivaraitre refression analysis

### ***Inferences***

The Model Summary includes multiple correlation coefficient R and its Square and also the adjusted version of this coefficient as summary measures of the model fit. The Linear Regression Coefficient R= 0.880 indicates that there is very strong correlation between dependent and independent variables (a closer figure to 1.000 means a stronger correlation). In terms of variability, the value amount of R<sup>2</sup>= 0.775 or 77.5% explains the variability within the population. So, 77,5% of the population in the sample agree on the correlation between the given variables.

Further the Standard Error of Estimate value reflected in the Table is 0.503 and represents the mean absolute deviation and is moderate considering the LMI ranges from 1 to 5.

## CONCLUSIONS AND LIMITATIONS

The study shows a very strong correlation between the LMI and the automation grade which indicates that Automation and Lean Philosophy does not exclude each other although it needs a further study to figure out in detail what kind of automation has the greatest impact and if the LWH was introduced and applied in a holistic and sustainable way. Furthermore, by triangulation of the survey groups with Managers in the qualitative survey and with operators at the quantitative survey it could be shown a lack of understanding between the importance of single factors. According to that the group of managers tend to underestimate the role of leadership and culture whereas operators ascribe a high influence on that factors like the literature does.

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## FAILURES IN INTERNATIONAL PARTNERSHIPS: THE ROLE OF SEW IN FAMILY FIRMS

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### ABSTRACT

This study aims to answer the following research question: Why international partnerships (IP) of family Small and Medium Enterprises (fSMEs) fail? In doing so, it builds on the network theory and the Socio-Emotional Wealth (SEW) theory and investigates: 1) the factors that trigger IP failures in the context of fSMEs internationalisation and 2) the role of SEW in IP failures of fSMEs. To address the research question, this study employs a multiple case study design of six fSMEs operating in the Food and Beverages sector. The case study evidence indicates that *bureaucracy issues* and *institutional restrictions* (external factors), as well as *unfulfilled expectations* related to financial agreements and brand placement (internal factors), led to failures in IP of fSMEs. The case study evidence also indicates that the *family owners' identification with the firm* drove decision-making in IP strategic decisions. The contribution of the case study is twofold. It informs the international networking literature by presenting a framework of potential environmental (external) and individual (internal) factors which trigger IP failures in the context of fSMEs internationalisation. Furthermore it brings into light potential SEW dimensions (the *family owners' identification with the firm*) that drive the decision-making underlying family owners' IP strategic decisions.

*Keywords: family firms internationalisation, SMEs, international partnerships, failures, SEW*

### INTRODUCTION

The overarching objective of this study is to investigate why International Partnerships (IP) of family small and medium enterprises (fSMEs) fail. FSMEs are businesses having up to 250 employees (European Commission, 2003) “*in which family members have substantial ownership and take an active role in management*” (Hennart *et al.*, 2019, p. 8). International partnerships (IP) constitute ongoing international business (IB) relationships “*between diverse actors based on mutually agreed objectives*” (Brinkerhoff, 2002, p. 1286). IP are of particular importance to fSMEs since IP can provide benefits to fSMEs, such as the necessary resources (human capital, social capital, etc.) that fSMEs lack and hence

they can help fSMEs to compete in the international arena (Cesinger *et al.*, 2016; Kraus *et al.*, 2016; Stieg *et al.*, 2018; c.f. Sharma *et al.*, 2019).

Until recently, IB research on IP have mostly focused on the investigation of the factors that lead to successful IP (e.g. Hajidimitriou and Georgiou, 2002; Mohr and Spekman, 1994) and fewer studies have explored the factors that trigger failures in IP (Rajan and Dhir, 2020). Nevertheless, empirical research indicates that more than half of IP fail (Kale *et al.*, 2001; Schrank and Whitford, 2011).

Although, there is IB research on IP failures in various contexts such as joint ventures or strategic alliances (cf. Nummela *et al.*, 2016; Park and Ungson, 2001; Westman and Thorgren, 2016), research on why IP of fSMEs fail in the context of Family Firms (FF) internationalisation seems to be limited (e.g. De Farias *et al.*, 2009). The FF internationalisation literature has omitted to explore the factors that trigger IP failures of fSMEs and the factors underlying the decision-making in family owners' IP strategic decisions (e.g. De Farias *et al.*, 2009; Pukall and Calabrò, 2014). Nevertheless a research on IP failures in the context of fSMEs is important since factors that trigger IP failures *may be different* for fSMEs mostly for the two following reasons.

*First of all*, existing IB studies that examine IP failures have mostly focused on large or medium-sized enterprises without explicitly mention if the results of those studies refer to fSMEs or not. Nevertheless, researchers should refer to the context of their study (FFs or non-FFs) in order to avoid contradictory findings in the literature (Kampouri *et al.*, 2017).

In particular, fSMEs are shown to behave differently when they take important decisions compared to firms with different ownership structures (Cesinger *et al.*, 2016; Stieg *et al.*, 2018; Scholes *et al.*, 2016). This different behaviour of fSMEs derives mostly from the family owners' priority on the preservation of the Socio-Emotional Wealth (SEW), i.e. the non-economic rewards that owners may derive from their fSMEs such as the maintenance of control or the identification of the family with the fSMEs (Berrone *et al.*, 2012). Hence, the decision-making underlying fSMEs' international IP strategic decisions and thus the factors that trigger failure in IP of fSMEs may be different, compared to non-FFs, due to SEW dimensions that may influence fSMEs' decision-making on IB partners.

*Second*, the existing IB studies, that have investigated IP failures, have mostly focused on IP failures of large or medium-sized enterprises which have occurred in high-committed relationships (e.g. international joint venture partnerships) (e.g. Meschi and Wassmer, 2013; Zineldin and Dodouva, 2005). Nevertheless, fSMEs prefer mostly non-equity modes to internationalisation (e.g. exports) and develop low-committed IB relationships (e.g. IB relationships with intermediaries during exportation) due to risk avoidance and fear for potential economic losses (Eberhard and Craig, 2013; Kontinen and Ojala, 2011; Scholes *et al.*, 2016). Failures in low-committed IB relationships may hinder the fSME's entrance and/or their maintenance to foreign markets and thus their international growth. Also, the

threat of IP failure represents a critical situation not only for fSMEs' international but also for their domestic survival, as the pursuit of the entire family wealth is at stake (Berrone *et al.*, 2012; Gómez-Mejía *et al.*, 2011).

Taking these into account and also the literature calls for an exploration on IP failures of fSMEs (De Farias *et al.*, 2009) and for international networking activities of fSMEs (Leppäaho and Metsola, 2020), the research question driving this study is the following: *Why IP of fSMEs fail?* To address this research question, this study draws on (i) the network theory and (ii) the Socio-Emotional Wealth (SEW) theory and aims to investigate: 1) *the factors that trigger IP failures in the context of fSMEs internationalisation* and 2) *the role of the SEW in IP failures of fSMEs*. Such an exploration is important since it may enhance our understanding on the behaviour of fSMEs in international networking activities and thus on their internationalisation (Cesinger *et al.*, 2016; Leppäaho and Metsola, 2020; Pukall and Calabrò, 2014). Such an exploration may also help family owners to develop suitable practices and avoid certain pathways which may lead into IP failures.

## THEORETICAL BACKGROUND

### *The Network theory on the study of International Partnership Failures*

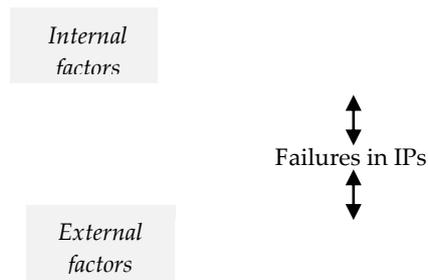
According to the network theory, internationalisation is “a process of initiating, developing, and maintaining IB relationships” (Johanson & Mattsson's, 1998, p. 288). As already stated, the IB relationships among diverse actors which “are based on mutually agreed objectives” constitute IP (Brinkerhoff, 2002, p. 1286). IP are at the core of internationalisation given that internationalisation depends on a firm's international relationships (Johanson & Mattsson, 1988; Johanson & Vahlne, 2009). Indeed IP are important because they constitute the usual means for resource exchange (Meschi and Wassmer, 2013).

IP failure refers to the “*the unintended/unplanned termination or (perceived) unsuccessfulness of a relationship*” (Oerlemans *et al.*, 2007, p. 197). IP failure does not only mean termination of an -up to a certain point - successful relationship, yet it implies international relationship *instability* or *unsatisfactory goal accomplishment* as well.

IP failure can occur in any stage (or else step) during the IP relationship development process (Dwyer *et al.*, 1987), but most authors agree that failure is most likely to occur during the screening stage (Duisters *et al.*, 2011). Regardless the step that IP failures may occur, factors that trigger failures in IP may include individual (internal) factors and/ or environmental (external) factors (Nummela *et al.*, 2016; Ooghe and De Prijcker, 2008; Park and Ungson, 2001). With regard to internal factors, IP failure may occur as the result of a *strategic, deliberate decision*. This decision may be due to *under-performance*,

*strategic change* and/ or *personal disengagement of the entrepreneur* (Matthyssens and Pauwels, 2000; Welch and Welch, 2009).

IP may also fail because of the *opportunistic hazards* as each partner tries to maximize its own individual interests instead of collaborative interests (Park and Ungson, 2001). Such opportunistic hazards may influence the trust between business partners and their commitment to the IP, hence increasing the likelihood of IP failure (see figure 1).



**Figure 17:** Factors that trigger IPs failures (preliminary theoretical framework)

(Source: developed from Nummela *et al.*, 2016; Park and Ungson, 2001)

Also, extant research has related failure to *managerial incompetence*. Entrepreneurs of fSMEs may suffer from necessary resources, such as human capital resources, or they may even do not use the necessary resources wisely. Such managerial incompetence may negatively impact upon IP success and increase the likelihood of failure (Nummela *et al.*, 2016).

Finally it should be noted that, some entrepreneurs may be viewed as victims of changing circumstances in which failure results from *external* factors often beyond their control. To illustrate, IP may fail when governments cannot create macro-environment conditions conducive to international growth (Nummela *et al.*, 2016). Moreover, external factors, such as technological shifts may trigger IP failure (Welch and Welch, 2009).

Although the extant literature offers insights into IP failures (e.g. Pauwels and Matthyssens, 2004), the studies focusing on the factors that trigger IP failure in the context of FFs internationalisation are limited (e.g. De Farias *et al.*, 2009). Given that the decision-making in fSMEs differ mostly due to SEW preservation tendencies (Berrone *et al.*, 2012), the factors that trigger failures in IP may be different for them. Such knowledge is important since it may prevent fSMEs from potentially mistakes when selecting an IB partner.

#### *The Socio-Emotional Wealth (SEW) Theory*

The SEW concept emerged from Gómez-Mejía *et al.* (2007) and over the last years many studies on FFs have been rooted in what has been termed as the SEW theory (e.g. Cesinger *et al.*, 2016; Pongelli *et al.*,

2016). The root of SEW theory is the behavioural agency theory (Wiseman and Gomez-Mejia, 1998). The SEW theory suggests that depending on the situation they are facing, FFs are making important strategic decisions and choices, always with SEW dimensions as the main reference point (Berrone *et al.*, 2012, p. 259). SEW dimensions that influence FFs managerial attitudes are: 1) the ability and the desire of family members (usually the owner) to exert control and influence over FFs' strategic decisions, 2) the strong identification of FFs with the family name (e.g. family members care to perpetuate a positive family image and reputation), 3) FFs' social relationships, i.e. the sense of belongingness which is shared not only among family members but also among non-family employees, promoting a sense of stability and commitment to the firm, 4) family members emotions that permeate the organisation, influencing the FFs decision-making process, and 5) the intention of handing the business down to future generations (Debicki *et al.*, 2016, Berrone *et al.*, 2012, p. 279).

The fact that ownership characteristics between fSMEs and other types of firms with different ownership structures may differ, could impose specific constraints on fSMEs' ability to engage in certain strategic moves, including also their international decisions to maintain or terminate IB relationships with foreign partners. Indeed, research has shown that important strategic decisions on IP are influenced by SEW preservation tendencies (Cesinger *et al.*, 2016; Stieg *et al.*, 2018; Scholes *et al.*, 2016). For example, past research has shown that fSMEs select non-equity modes to enter foreign markets and are unwilling to develop high-committed IB relationships due to the fear of not being able to maintain control of the foreign business (Pukall and Calabrò, 2014). Research has also highlighted that when fSMEs develop an IB relationship, they try to maintain this relationship mostly due to the preservation of the family harmony (Scholes *et al.*, 2016).

Nevertheless, the literature has also provided mixed results with regard to the behaviour of FFs' IP development. For example, although scholars have emphasized that FFs avoid risky options and internationalise by reactively responding to demands from foreign customers (Graves and Thomas, 2008; Kontinen and Ojala, 2011), other scholars have reported that there are FFs that may carefully select IB partners to develop committed relationships with them, and hence those firms carefully evaluate the potential IB partners' characteristics (e.g. Kao and Kuo, 2017; Kao *et al.*, 2013;). However, it seems that those studies which show that the investigated FFs develop highly-committed IP are of a large size (e.g. Kao and Kuo, 2017; Kao *et al.*, 2013) whereas those studies which show that the investigated FFs develop low-committed IP are of smaller size (e.g. Graves and Thomas, 2008; Kontinen and Ojala, 2011). Regardless the type of the relationships (high or low committed relationships) many IP of fSMEs are failing and the relevant research is limited with regard to the factors that trigger such failures (e.g. De Farias *et al.*, 2009) and the SEW dimensions that may influence family owners' decision-making (Cesinger *et al.*, 2016).

## METHODOLOGY

To address its twofold purpose, this study employed a multiple case study design. A multiple case study design allowed capturing the “how” and “why” IP of fSMEs were terminated or perceived as unsuccessful (Eisenhardt and Graebner, 2007; Fletcher *et al.*, 2016). It also served to illuminate the complex and under-investigated phenomenon of IP failures of fSMEs by facilitating the collection of rich data from multiple sources of evidence (Dubois and Gadde, 2014; cf. Yin, 2009; Welch *et al.*, 2011).

The selection strategy was criterion sampling (Fletcher and Plakoyiannaki, 2011) and fSMEs met the following criteria: 1) had at least one IP that had been terminated, 2) operated in the Food and Beverage sector, and 3) had 100% percentage of ownership. This study aimed to include case study firms that had at least one IP terminated in order to collect retrospective accounts on “how” and “why” FFs decided to terminate the IB relationship (Craig-Lees, 2011). Context sensitivity is also important, as macro trends can influence IP success and failure and internationalisation (c.f. Dimitratos *et al.*, 2010). In order to limit the effect of external factors in this study, the cases were drawn from a single industry. The Food sector was selected given its dynamic nature and its growth potential in foreign markets (Karipidis *et al.*, 2020). Moreover, this study aimed to include fSMEs with 100% percentage of ownership because this type of firm places a priority to the preservation of SEW tendencies (Mensingh *et al.*, 2016). It should be also highlighted that this study examined one member of the IB relationship (the fSME) since dissolution is more often generated unilaterally (Dwyer *et al.*, 1987).

The criterion sampling strategy generated a pool of 20 fSMEs. All fSMEs were contacted through telephone or e-mail and nine of them agreed to participate in this study. From those nine fSMEs, six were selected for this study since they were willing to provide information on the *unsuccessful* IP. The case study firms were of medium (Firms A and B) and micro size (Firms C, D, E and F). Moreover, six failed IP of six fSMEs with their foreign wholesalers and/or distributors were examined (Table 1).

| FSMEs  | Size   | International partnership failures (type and country) |
|--------|--------|---|
| Firm A | Medium | - IP with distributor (Belgium)                       |
| Firm B | Medium | - IP with wholesaler (Germany)                        |
| Firm C | Micro  | - IP with wholesaler (USA)                            |
| Firm D | Micro  | - IP with wholesaler (Germany)                        |
| Firm E | Micro  | - IP with wholesaler (France)                         |
| Firm F | Micro  | - IP with wholesaler (Belgium)                        |

Table 1: Information on the investigated fSMEs

Following Yin’s (2009) suggestions data were collected from multiple sources. In particular 18 in-depth, open-ended personal interviews were gathered. The interviews were all tape-recorded and

ranged from 60 to 90 minutes. Interviewees were invited to elaborate freely on questions such as: “*Why did your most recent IP fail?*”

In each firm, the owner (usually the founder of the firm) or CEO was contacted and constituted the primary respondent of the study. The primary respondent was requested to identify other key respondents who were included in this research using snowballing sampling (Miles and Huberman, 1994). These respondents were chosen due to their direct experience with the fSMEs’ international networking activities (cf. Polkinghorne, 2005). Such a selection enhanced the collection of nuanced accounts associated with the purposes of the study. Secondary materials, such as web pages and documents (e.g. internal presentations) were utilized as well. The secondary material was used to understand the history of each firm as well as to triangulate with the insights gleaned from the interviews (Yin, 2009).

Data analysis was conducted in two phases: first, within-case analysis that included write-ups for each investigated fSME and second, cross-case analysis that involved the identification of cross-case patterns (Eisenhardt, 1989; Miles and Huberman, 1994) across our dataset. Specifically, we followed an abductive approach to analyse rich case study data (Dubois and Gadde, 2002; 2014). This process involved iterating between the data and the existing body of knowledge (Miles and Huberman, 1994). To organise the data collected from multiple contexts, our analysis of qualitative data followed three stages, namely: 1) categorisation, 2) abstraction and 3) integration stage (Spiggle, 1994).

In the categorisation phase, data emerging from interviews plus secondary data were coded. In vivo coding used in order to organise the data and to facilitate the identification of themes across the different sources (Saldaña, 2013). We then employed thematic analysis in order to unveil similar thematic aspects across data sources. In the following stage of data analysis, namely the abstraction stage, the themes were linked into conceptual categories (cf. Dimitratos *et al.*, 2010; Spiggle, 1994). In this stage, the emerging themes related to the theoretical framework reviewed and refined, so as to ensure the quality of the findings, by investigating the relationships between “the everyday language” of the empirical data and the concepts in the existing literature (Dubois-Gadde, 2002, p. 555). In the final stage of data analysis, i.e. integration, we connected the empirical findings with existing theory. Particularly, in this phase it was crucial to examine the emergent themes and concepts in light of the relevant literature so as to illuminate aspects of IP failures of the fSMEs.

## FINDINGS

### *Factors that trigger IP Failures of fSMEs*

Most failures in IP of the investigated fSMEs occurred as a result of a *deliberate decision* of the family owners (IP of firms A, B, C, D and F). In particular a *personal disengagement of the family owners* (Welch and Welch, 2009) occurred due to external and internal factors (Nummela *et al.*, 2016; Ooghe and De Prijcker, 2008; Park and Ungson, 2001).

Our case study evidence highlighted that external and internal factors led to failures in IP at a very early stage during the relationship establishment process (IP of firms B, D and F) whereas only internal factors led to failures in IP at a later stage during the relationship establishment process (IP of firms A, C, E). As quoted below:

*“Sometimes we are urged to **end a potential international partnership because of bureaucracy**. We terminated an emerging partnership in Japan because **the government asked for too many certifications** ... But here in Greece we do not even know how to develop those certifications given that there isn't any appropriate service for these issues...”, CEO and family owner, Firm F*

From the above quotation we understand that most fSMEs stopped the communication with potential IB partners due to *bureaucracy issues* and *institutional restrictions* in the exporting country (c.f. Nummela *et al.*, 2016). Nevertheless, when there were no external restrictions, IP usually failed due to internal factors. As one of our interviewees mentioned:

*“A business from Belgium wanted to develop an international partnership with us... In Belgium when a business sells a branded product, the etiquette should be in two languages English and France. Hence, we had to transform the information in our etiquette accordingly. We did all the necessary things that we were asked to, and **although we had agreed upon the price of exportation, when we were ready to export our products the international firm wanted a discount on the price...** We immediately stopped the communication, although we had spent enough money to do the necessary steps for exportation”, CEO and family owner, Firm D*

From the aforementioned quotation we understand that family owners' personal disengagement of the partnerships was mostly due to problems in *unfulfilled financial agreements*. Unfulfilled financial agreements led to termination of the emerging IP. This finding is in line with the existing literature highlighting that economic benefits drive decision-making in partner selection (Shah and Swaminathan, 2008).

IP of firms A, C and E also failed due to *opportunistic hazards* between partners (internal factors) (Nummela *et al.*, 2016; Ooghe and De Prijcker, 2008; Park and Ungson, 2001).

As quoted below:

*“We had an international business partnership in Belgium many years ago. Nevertheless, this partner had other brand labels of honey as well... Our partner **promoted those brands with higher profit, regardless the fact that he realized that our product is of higher quality...**”, Employee at the export department, Firm A*

In particular the family owners realized that the IB partner tried to maximize its own profit (by searching for other products) without paying attention to the promotion of the fSMEs' product (c.f. Park and Ungson, 2001). This behaviour of the international partner led to fSME's reduction of international activities with the international partner.

#### *The role of SEW in IP Failures of fSMEs*

Our case study evidence highlighted that a specific SEW dimension, namely the the identification of the family with the fSMEs drove decision-making in already established IP.

Family owners chose to terminate their IP in case they had realized that the placement of the product was not the one expected. FSMEs expected from the international partners to behave to the brand with the same way as the family did, to appreciate the brand and to promote it accordingly. In case family owners of the investigated fSMEs realised that the IB partner did not respect the brand, they reduced their exportation activities with foreign partners, even if the financial agreements were fulfilled.

*“Our international business partner did not handle the promotion of the product in an appropriate way... **The placement of the product was not the one expected... Nevertheless, our IB partners should respect our brand... The brand is the image of our family...** ”, Employee at the export department, Firm A*

In the aforementioned quotation, it is highlighted that the placement of the brand was an important goal for especially those fSMEs that were exporting branded product (firms A and C), since they link the family's name with the brand. Family owners aimed to perpetuate a positive family image and they linked the brand name with the family's reputation in the foreign markets. This finding highlighted family owners' identification with the firm (Debicki *et al.* 2016). The *identification of the family owners* with the firm led the family owners to re-evaluate their IP and to terminate other IP that were not perceived as successful to the fSMEs. This re-evaluation enabled the fSMEs to learn from past mistakes (Baumard and Starbuck, 2005) and to develop new criteria when selecting a partner to enter new international markets and helped them to build more successful IB relationships on other new foreign markets (Cesinger *et al.*, 2016).

## CONCLUSIONS AND DISCUSSION

This study provides a twofold contribution. First it informs the international networking literature by presenting a framework of potential environmental (external) and individual (internal) factors which trigger IP failures in the context of fSMEs internationalisation (figure 2).

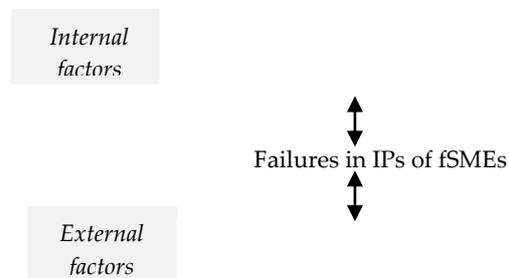


Figure 18: Factors that trigger IPs failures in fSMEs (source: the authors)

In particular, our case study evidence showed that *bureaucracy issues* and *institutional restrictions* (external factors) as well as *unfulfilled expectations* related to financial agreements and brand placement (internal factors) led to failures in IP of fSMEs. Second, it brings into light that family owners' identification with the firm drove decision-making in IP strategic decisions, hence extending the FF internationalisation literature on the role of SEW in strategic IP decisions (e.g. Cesinger *et al.*, 2016).

With regard to its limitations, this study delimits the investigated firms to one specific type of FFs, namely fSMEs in which family ownership is 100% and the intensity of the preservation of SEW high. Hence, this study does not consider IP failures of other types of FFs with lower percentages of family ownership. Nevertheless, the exploration of this type of FF is important since this type of firm places a priority to the preservation of SEW tendencies (Mensching *et al.*, 2016). Moreover, this research draws on fSMEs from a particular country and sector. Although this study purposefully investigated one single sector from one single country in order to limit the effect of external factors in this study (c.f. Dimitratos *et al.*, 2010), future research may investigate IP failures of fSMEs from various sectors located in different countries.

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## CITIZENS AS ACTIVE CONSUMERS IN THE ONGOING TRANSITION TO THE CIRCULAR ECONOMY

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### ABSTRACT

Contrary to the linear production model, circular economy (CE) is designed to close loops changing waste to valuable resources. Among the core principles of CE are the preservation of products for longer periods of time, repossession and reuse and a transfer from possession to service provision. However, such principles delineate emerging CE models, implementing significant reformations in markets and requiring consumers to make quite brave decisions to change habits, tastes and ways of living and seeing the world. At the same time, there will be changes at macro-level such as in the structure of the cities, in the means of transport, in agricultural cultivations and in dietary changes among others that will impact the life of individuals as both citizens and consumers.

Bearing in mind that these changes have already started taking place and expecting them to intensify in the immediate future, the main research question of the present study is if citizens-consumers are willing to adopt such changes in the name of the environment and the globe, and, if yes, how ready they are to respond to the emerging markets, products and services. Furthermore, it purports to detect the risks entailed in the implementation of the circular economy principles and the transition to new economic and social structures including potential rigidities, desires and concerns or potential signs of reaction.

This paper will present the theoretical background, the research questions and the research methodology of the investigation. The primary research was conducted in Greece in late 2019.

*Keywords: Circular Economy, renewable resources, waste, citizens-consumers, sustainable development, attitudes, barriers, consumption, sharing economy*

### INTRODUCTION

After World War II, the countries belonging to the Western Coalition experienced the golden age of capitalism or, simply, the long boom (1945-1973). The continuous production of new consumer goods and the development of technology seemed to justify the view that the advancement of human knowledge, science and technology is able to ensure uninterrupted growth and prosperity in humanity. The way the economy is organized in the post-war period was based on the business

practices of the Industrial Revolution. The core principle has been the stable economically sustainable supply of resources. Thus, a linear economic model of resource-production-consumption-disposal extraction was built which depends on the small life cycles of products and maximization of sales.

However, the linear economic model has led to the increase of the ecological footprint a trend which, if continued, will create the need for resources of two Earths by 2030 and of three Earths by 2050, for the humankind to properly function (Pollard et al., 2010). The significantly negative impacts of the “take–make–waste” models have almost imposed the need to shift to a new paradigm which could promise a new business model to decouple economic growth and environmental pressure (Stahel, 2016). The solution appeared to be the circular economy (CE) concept which appears to gain momentum worldwide (Ghisellini et al., 2016). “Hence, there is a pressing need for the current business economy to transition towards CE, which envisages the global economy as regenerative and restorative by intention and design (Ellen MacArthur Foundation, 2017).

Businesses models incorporating CE principles regard the circular flow of materials in the production and consumption phase (Edbring et al., 2016) which have introduced business strategies such as collaborative consumption and industrial symbiosis (Sign and Giacosa, 2019). However, CE application is not only a matter of production but also a matter of acceptance; while there are many detailed analyses on the general socio-economic implications and the benefits, it appears that there is little interest on the ways the society will change (Hobson and Lynch, 2016). Yet, the European Commission announcements on the CE do not separate consumers from citizens; this means that we all have to participate in ‘[i]nnovative forms of consumption’ (Tukker, 2013: 7) such as the much-lauded sharing economy and forms of ‘collaborative consumption’ which have been highlighted as excellent solutions to the above-mentioned problems, but they seem to be rather questioned by consumers. While CE has been widely promoted through the concepts of recycling, reuse and the much promising “food for all” motto, there are many CE sides which appear to be kept in the dark or being presented only in positive ways. Debating on the sharing economy, Shor states “At the same time, the critics are too cynical” (Shor, 2014, p. 11).

CE addresses citizens and the everyday life and consumption practices and not only targeted markets. It appears that there is a need for widening the debate on what a CE society should look like, allowing the public a voice in the consideration of the socio-economic values, practices, norms, forms and processes that could get us there. The present research is purporting to shed some light on this issue; the willingness of citizens-consumers to engage in the proposed model of life, sacrifice tastes or even rights and change habits.

This will be the main contribution of the study; despite existing research that shows the challenges and limits of the CE models, the study will highlight the fundamental role of the citizen-consumer to

accept or reject new and diverse business models, and to indicate gaps, weaknesses, adjustments and redirections for re-jigged product and service lines and their life cycles. Findings and their analysis will advance our understanding of sources of hesitation or even denial and the subsequent barriers or even highlight weaknesses of the model that might be early addressed in order to prevent any dark sides of a CE and thus improving it.

## LITERATURE REVIEW

The circular economy (CE) concept is trending both among scholars and practitioners as the solution to the decoupling of economic growth from environmental pressure (e.g. Stahel, 2016; Ghisellini et al., 2016; Preston et al., 2019). Linear production models have led so far to significant resource shortening and environmental problems. Visions of a CE are the replacement of these models with new ones that promise “abundance without (much) waste” (Hobson and Lynch, 2016) and “balance economic development with environmental and resource protection” (Murray, Skene and Haynes, 2017).

The main activities for a transition to a CE are cascading, renewability, longevity, reuse, upgrade, repair, capacity sharing, dematerialization and refurbishment (Lacy et al., 2014). Waste is thus revalued and turned into a resource (EC, 2015) or “Everything is an input to everything else” (Merli et al., 2018) without, however, identifying CE with recycling (Trigkas, 2017). The Circular Economy is therefore considered an important mechanism for sustainable production that will lead to positive industrial transformations. It will radically alter economic activities and free them from dependence on non-renewable energy sources (Korhonen et al., 2017).

The increasing interest and enthusiasm for the circular economy seems to be clearly rooted in beliefs that capitalism and the environment can be effectively and efficiently combined to produce sustainability (Roberts & Colwell, 2001). In other words, circular business models can make us “both rich and green” (Monbiot, 2015) introducing a type of shift wherein market forces are the central agent in delivering change. Therefore, it appears that “the circular economy is here to stay” (PricewaterhouseCoopers, 2017) and this fact presents significant challenges not only for the businesses but also for governments and of course consumers and citizens. The shift to CE is not only a major revolution in production but also in global consumption which requires changes in the consumer behavior as well (Delbecke, 2016).

The circular economy promises a variety of potential environmental benefits such as reduced carbon dioxide emissions and pollution in general, energy generating opportunities like the use of only renewable sources or energy production out of waste, together with business benefits such as

increased growth and profitability. According to McKinsey and Company (2015) a circular economy “would allow Europe to grow resource productivity by up to 3% annually” providing a net economic benefit of 1.8 trillion Euros by 2030.

Policy makers together with industrial sectors and a respectively growing number of companies are today translating the circular economic concept into international trends, new business models and novel corporate strategies. In the transportation sector, for example, companies try to pursue circular economy by the design and production of “circular cars” which is translated into zero pollution, use of renewable energy, recyclability and other environmental benefits, as well as the development of new business models that will provide the re-use of their spare parts (Baines et al., 2017). At policy level, integrated transport systems are promoted in which public transport and multi-user cars (such as uber) coexist, together with car-sharing systems, carpooling and so on.

Food is another important area for the CE; based on current data and the rate of the population growth, around 26 billion people will live on the globe by the end of the century (Pietzsch, 2017). There have been many aspects researched in order to foster a CE approach in the food sector such as the recovering and reusing of materials otherwise wasted along the supply chain (e.g. Coderoni and Perito, 2020), the water–energy–food nexus (e.g. Del Borghi, Moreschi, & Gallo, 2020) or attempts to produce proteins from insects (Cappelozza, et al., 2019). At macro level, circular economy involves the redesign of industrial and infrastructure systems as well as the socio-cultural systems resulting in eco-cities and collaborative systems (e.g. Ghisellini et al., 2016; Fusco and Nocca, 2019).

Furthermore, when it comes to benefits, these are mainly environmental, economic, operational and social, according to the relevant literature. According to Sehnem et al. (2019), most cited CE environmental benefits since 2010 refer to the reduction in use of raw materials and the minimization of waste lower carbon and greenhouse gases emissions and energy use reduction. In the same vain, the literature claims substantive financial profits when moving from linear to circular production, by value creation due to reduced costs as well as increased revenues (e.g. Nassir et al., 2017; Paquin et al., 2015). Financial profits result also from the operational benefits since CE contributes to raising productivity and increasing efficiency in resource management by the optimization of both natural and human resources (Linder and Williander, 2017; Missemer, 2018). However, it should be mentioned that most findings rely on empiric papers that rely on single company case studies and they generally focus on a particular environmental issue (Sehnem et al., 2019) while the number of companies truly implementing CE is still relatively small.

Quite astonishingly, there is scarce literature regarding the impacts of CE systems on social issues such as human rights, social inequality, or welfare of vulnerable populations. Murray et al. (2107) is

perhaps one of the few theoretical papers to analyze social impacts of CE focusing on social equity (intragenerational and inter-generational).

Circulating from high-level policy settings like the EU to environmental programs and NGOs, the global reach of CE thinking appears to have almost exclusively been developed by practitioners, i.e. policymakers, business consultants and business associations (Korhonen et al., 2018) and to have shifted to a mainstream political, economic as well as social agenda of structural change (Preston, 2012). Valenzuela and Bohm (2017), for example, suggested that “the circular economy has been one of the main references for rebuilding a political economy of sustainable growth”. Accordingly, the emerging CE-society will be quite different from the existing one; but do citizens really want all norms, values and core actors as they have been presented so far?

For example, there is much work done to provide clearer information on the environmental impacts of consuming behavior initiatives to develop and promote more responsible environmental attitudes. However, according to empirical research so far, price is widely seen as a main factor in buying behavior (Jones and Comfort, 2017). On the other hand, several other efforts, besides information, such as eco-labelling and other instruments for green consuming appear to find a place in consumers’ buying judgements while new collaborative consumption models support the shift to CE.

Based on a shared ownership canvas, bartering, renting and other forms of sharing (e.g. Van Meter, 2013) constitute forms of the emergent sharing economy and support the transition from the ownership-based current consumption model (Tukker, 2015). Such models seem to open niche markets and consumers (especially millennials and younger generations), to invest in selling services instead of selling product and to embrace collaborative consumption mainly in digital and internet business such as website-based networks sharing music, art and fashion. For-profit peer-to-peer services, like Airbnb and Uber, have been argued as reshaping production and service delivery (Sundararajan, 2013). Lifestyles change rapidly while environmental sensitivity grows among younger generations who appear to value access over possession and experiences over ownership. According to Cooper and Timmer’s (2015) estimates, the Sharing Economy will be worth up to \$335 billion in revenues by 2025.

Yet, loss of ownership constitutes one of the most significant barriers for a transition to CE systems (Ghisellini et al., 2016). One cannot underestimate the emotional bonds with objects, otherwise known as product attachment (Mugge et al., 2005) or the motives of self-identity. For example, private dwelling creates a feeling of security and familiarity which is threaten by the sharing concept. According to Edbring et al.’s (2016) empirical research, consumers may accept sharing models, but the majority appears rather reluctant in consenting to access-based types of consumption. Furthermore,

dependence on internet services and sharing platforms questions the level of our control over the nature and content of our online 'sharing' interactions (Vanolo, 2014).

Another important issue to be addressed is the perceived social pressure already imposed or assumed to be imposed in the future for the sake of circular economy in order to adapt certain behaviors (Singh and Giacosa, 2019). Ownership or possession of certain objects forbidden by law, such as forbidding of private land use or enforcement of home sharing by law are threats that emerge quite easily when people hear about the necessity of sharing economy. In the same vein, one should not forget that we all develop habits and behaviors that we do not want to change; we love routines and we are usually unconsciously satisfied with the status quo. Passive resistance is rather unconscious and pure awareness and information on CE and its positive impact on environment is not capable alone to remove any form of it.

Consumers are also rather skeptical towards circularity in the form of remanufacturing or use of alternative sources of food (e.g. Wang et al., 2013). Indicatively, from the perspective of sustainability, insects are promoted as useful for food, feed and other purposes. A number of papers argue that health benefits when well communicated can entice consumers to drop their conservative attitudes and turn to such new environmentally-friendly trends (e.g. Aiking, and de Boer, 2019). However, edible insects are not part of the traditional European diet at least. Using edible insects as food and feed requires consumers' willingness-to-eat, overcoming disgust and neophobic reactions, besides taste and other sensory aspects (Rumpold and Langen, 2020).

When it comes to second-hand products, there is a significant level of hesitation (Machado et al., 2019); the majority would not avoid thinking of the former user of these products; most of us do care about who previously handled them and what they were used for. Consumers' willingness to buy re-used products has been related to the perceived risk that the products are of lesser quality, either functionally or cosmetically (Abbey et al., 2017), especially if these products are household appliances, TV and audio or computers.

All in all, there is a small but steadily growing empirical literature investigating consumer concerns regarding their participation in the CE while little is still known about consumers as citizens' acceptance of the CE as a whole. Furthermore, empirical studies so far have primarily focused on individuals who are already active in specific CE schemes. It certainly appears that there is a need for a wider debate involving consumers as human beings and citizens and a more thorough investigation regarding the aspects of a circular economy that should be fostered or reconsidered. Which are, actually, those realities that may be embraced towards a better life although they involve "a sacrifice of our current, tangible needs and desires, in the name of a better but uncertain future" (European Commission 2012)?

The present research will try to investigate a part of the above big puzzle. The main research question is

are citizens - consumers willing to adopt such changes for the sake of the environment and the transition to circularity”,

How ready are they to respond to the emerging markets, products and services, and accept them for the sake of our globe and the environment?

What are the risks entailed in the implementation of the circular economy principles and the transition to new economic and social structures? Which may be the potential attitudes, rigidities and fears or the potential signs of reaction? What are the motives to promote the change of consuming behavior?

## **RESEARCH DESIGN AND METHODOLOGY**

The primary research for this exploratory study focuses on Greek citizens-consumers over 16 years old. The key tool of this investigation was a structured questionnaire, specially designed to obtain a broad understanding of the investigated issues. The data was collected by both using the Google Forms app and by distributing the questionnaire in paper form.

The questionnaire was structured in such a way that at the outset it included questions aimed at determining citizens-consumers' attitudes to issues relating to the saving of natural resources and, by extension, the protection of the natural environment. The second part of questions in the questionnaire aim to explore consumer preferences as well as consumer thoughts towards changing attitudes regarding several products' consumption, and finally the third group of questions refer to the citizen-consumer profile. The questions are close-and-open-ended while quantitative and qualitative characteristics are explored.

The research aims to record citizen-consumers' desires for CE products, as well as to explore incentives that would push consumers to change their consumer habits. Consumer views on human rights issues and their tolerance for limiting them in the name of a better future are given great weight. Attempts are also made to identify opportunities that could be exploited by citizens-consumers, for policy-making in regard of businesses and the state. Some questions indent to identify well- hidden or unconscious attitudes that could jeopardize the implementation of the circular economy as well as potential threats related to changes in the social structure.

The questioner is actually based on the “rethinking direction”; rethinking products, ownership, waste, lifestyle and business in order to rip the benefits of the CE implementation such as to reduce carbon footprints and resource use or to achieve equitable access to previously unaffordable goods and services. However, a range of deep-seated concerns and issues are also provided to respondents,

highlighting practical, economic and social conditions that would need to be met if the circular economy for a desirable future.

In the preliminary stage of the study, the questionnaire was pre-tested on 35 citizens-consumers, in the period between 25 and 30 September 2019. Consumers were selected non-randomly, on accessibility basis and in an effort to represent age, sex, different incomes and the other socio-demographic variables. The consumers who participated in the questionnaire's pre-test phase have not been included in the final sample. The questionnaire's pre-testing led to changes in the questionnaire, such as regrouping and reformulating some questions, in order to reduce the size of the questionnaire, since the majority of the respondents appreciated the difficulty and the time length to complete the questionnaire a little high.

The data collection took place from October to end December 2019. The final number of respondents was 385, but 20 responses were incomplete. Therefore, the final sample counts 365 respondents, representing a response rate of 94.81%. 193 questionnaires were answered by social media and e-mail. The data will be recorded, processed and analyzed using the IBM SPSS Statistics 25 special statistical program, as well as the relevant frequency checks (Frequencies), descriptive statistics and correlations (Norusis, 2007).

## CONCLUSIONS

A transition to the circular economy will certainly constitute a gradual but dramatic change in the way in which citizens - consumers will approach products and services challenging their social value. Established opinions and habits make it difficult for many of us to buy into second hand or reusable patterns of consumption, share cars or eat insects. Practically, citizens-consumers are already at the heart of the circular economy and behavioral changes are according to literature not easy to achieve. However, at present, the citizen-consumer perspective takes a rather narrow position in the CE literature. In spite of the growing literature on CE, the aspects of consumption are under-addressed (e.g. De los Ríos and Charnley, 2017) with limited attention on the individual, social and cultural aspects.

This paper indicates that there is a pressing need to open up a broader and more nuanced debate on the role of the citizen-consumer within the CE framework, since consumer behavior is difficult to change. It places the citizens- consumers at the center stage and explores their various biases as barriers to the transitions to the CE. Debates on the CE so far, treat consumers as passive consumers and pathetic recipients of EU and governmental policies.

The research findings will add to the limited existing empirical knowledge on the conceptualization of the citizens-consumers and the barriers they experience due to the limited fulfillment of their socio-cultural needs by existing CE systems, assigning them an active role as both citizens and consumers.

Thus, the paper will contribute in several ways: a) it will add to existing empirical knowledge on CE, advancing the understanding of why consumers are reluctant to adopt some forms of CE creating respective barriers to the transition towards a CE and, on the other hand, how they are likely to respond to relevant attempts regarding CE ; b) it will offer new insights into the management literature in general, providing empirical evidence on the context of individuals' concerns, attitudes and expectations and thus allowing for the formation of novel business models and the design of relevant and better accepted products and services within the CE system; c) it will allow policy-makers to find more suitable ways to enable transition to the CE and "usership" instead of ownership, and design proper roadmaps for producers, retailers and brand owners to reframe their relationships with consumers; d) it will add to the bridging of theory, policy-making and practice within the CE area.

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## THE ROLE OF ECO-CERTIFICATES AND LABELS IN SUSTAINABLE TOURISM DEVELOPMENT: A CASE STUDY FROM CROATIA

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### ABSTRACT

The application of eco-certificates and labels in tourism is an indicator of the implementation of the concept of sustainable tourism, which is aimed at protecting and preserving the environment at a given destination. Eco-certificates and labels of a destination have a positive effect on the ecologically responsible behavior and awareness within the tourism supply, which in turn introduces quality and distinctness on the tourism market. Other than promoting ecologically conscious behavior, eco-certificates stimulate tourism demand for products with a reduced negative effect on the environment.

The aim of this paper is to determine the role of eco-certificates in sustainable tourism development. A research was conducted across eight urban destinations in the Republic of Croatia on several stakeholder groups in each destination (the public and private sector, local population and tourists). A semi-structured questionnaire on 2,300 respondents shows attitudes toward the influence of eco-certificates on tourists' decisions when choosing a destination; specifically, the tourists' readiness to pay extra for eco-certified products and services at a destination. Variance analysis was used. The respondents generally show a positive attitude toward eco-certificates, with visible differences in stakeholder attitudes on the level of a particular destination, differences between different stakeholder groups, and differences for each particular eco-certificate. The results indicate an increasing importance of eco-certificates on the tourism market, as well as the need to understand their role in the destination's sustainable tourism development. Consequently, it is to be expected that these certificates will increase in application, which is why further research in this field is necessary.

*Keywords: eco-certificates and labels, sustainable tourism development, tourism destination*

### INTRODUCTION

Sustainable tourism development, quality improvement and standardization impose the need for the application of eco-certificates and labels in tourism. In academic and professional community there are various aspects of study on this topic. The aim of this paper is to determine the role of eco-certificates in sustainable tourism development. The research conducted within this paper should be

considered as research in the process, considering the current knowledge on the role of eco-certificates and labels in tourism, but also the methodology applied in the paper and given results. A research was conducted across eight urban destinations in the Republic of Croatia on the main stakeholder groups in the destination. The results generally show a positive attitude of stakeholders towards eco-certificates, with visible differences in stakeholder attitudes. The results indicate an increasing importance of eco-certificates on the tourism market and the need to understand their role in sustainable tourism development.

On the EU level, the number of eco-labeled products and services has increased fourfold in the last ten years. Last year alone there were 1,623 ecolabels assigned per 77,358 products and services, which is nearly twice as many compared to 2016 (European Commission, 2020). In this respect, Spain, Italy, France, Portugal and Germany take first place. Eco-certificates and labels in tourism have been created in order to emphasize or confirm whether a given tourism supply has adopted sustainable business practices. Sustainable tourism labels, eco-labels, certificates, awards and recognitions; ecological awareness, socially responsible business practices, as well as various educational campaigns – these are all strategically created in order to direct tourist behavior towards responsible and sustainable tourism (Budeanu, 2007), largely because tourism business practices have become an instrument of diversification and competitiveness on the tourism market (Blancas et al., 2015). In fact, sustainable tourism supported by the relevant eco-certificates and eco-labels also means more effective management practices; more innovative and diverse tourism products, as well as better visibility on the tourism market. Eco-certificates and labels refer to a reduced negative effect on the environment, so they represent the implementation of the concept of sustainable tourism.

## **MEANING OF ECO-CERTIFICATES AND LABELS IN TOURISM**

There are certain differences between eco-certificates and eco-labels. Eco-certificates refer to standardized business processes directed at preserving and protecting the environment. These processes do not change; rather, the management and employees conform to them. Eco-labels, on the other hand, are tools for ensuring efficiency when it comes to an organization's environmental protection efforts, and they are also used to provide consumers with relevant information (Ayuso, 2007). Eco-certification implies stricter rules for implementation, since it requires complete transformation in management and total standardization when it comes to the quality of an entire array of business processes directed at environmental protection and preservation. Eco-labels designate a certain degree of reducing negative effects on the environment and the tourism product related to it. The shared aspects of both eco-certificates and eco-labels certainly have to do with a deliberate and voluntary determination to preserve and protect the environment, which, however,

directly incurs increased expenses for implementation and maintenance (Mihalič, 2001). There are, on the other hand, decreased long-term business expenses and an improved corporate image. This also promotes changes in behavioral patterns, which in turn has an effect on consumer behavior.

Despite the distinct similarities and differences between eco-certificates and eco-labels, relevant sources often use the two terms interchangeably. This is partly due to the large and varied number of eco-certificates and labels, along with the differences when it comes to their application and interpretation; in fact, in 2010 alone in Ireland there were six distinct programs for certifying sustainable tourism development (Conaghan et al., 2010). Some sources use the term *certified ecolabel*, which is confusing indeed (Eco Label Index, 2020). Marx (2014) draws similar conclusions after conducting a comparative analysis of 426 eco-certified systems. Ultimately, this variety and variance problem is evident in the Eco Label Index database (2020), which contains and catalogues a total of 458 eco-certificates and labels across 199 countries and 25 business sectors, including 135 eco-certificates and labels pertaining to tourism. Eco-certificates and labels are used in all aspects of the tourism industry; they have increased in number as well as implementation on a global scale. For instance, the well-known Blue Flag eco-label was implemented in 3,850 beaches and marinas across 46 countries in 2012, whereas in 2020 thus far this number has increased to 4,560 across 47 countries (Blue Flag, 2020). According to 2019 data, the largest amount of eco-labeled products came from the tourism industry, with 22% of those being related to accommodation (European Commission, 2020).

## **THE ROLE OF ECO-CERTIFICATES AND LABELS IN SUSTAINABLE TOURISM DEVELOPMENT**

Karlsson and Dolnicar (2015) find that the application of eco-certificates and labels is still statistically insignificant, because the cost of eco-certificates is too high, whereas returns on investment are still unclear, with eco-certification still not having a potential competitive advantage on the market. This was also found by Ayuso (2007), as tourism managers in Spain seemed to report only the expenditures related to attaining an eco-label, revision strategies and membership fees, while on the other hand there was no noticeable increase in consumer demand. In this respect, Buckley (2012) states that certification programs in tourism have limited application on the market, because of their low reliability and lack of transparency for the consumer.

On the other hand, the research by Segarra-Oña et al. (2012) and Molina-Azorín et al. (2015) shows that in the Spanish hospitality industry, employing eco-certificates boosted overall efficiency, productiveness and employee satisfaction, as well as the quality of service and customer satisfaction, all of which in turn lowered the overall business expenditures. This also increased their visibility on the market and had a positive effect on the tourists' behavior. Capacci et al. (2015) tracked Italian

coastal destinations and states that the number of Blue Flag beaches has increased from 73 to 131 in the period of thirteen years. These Blue Flag beaches have become more attractive, which increased international tourist visits and revenue compared to other Italian destinations which are not Blue Flag labeled. Furthermore, Medina et al. (2012) reports this same positive correlation between the implementation of the Blue Flag label and increased international arrivals and revenue when it comes to coastal destinations in Portugal and Spain. However, Chamorro-Mera and García-Gallego (2019) conclude that even though tourists are very aware of the Blue Flag label, they are still disinclined to pay for the more expensive rates for accommodation which is located near a Blue Flag labeled beach. Barbulescu et al. (2019) find that the majority of hotel managers in Romania believe that the EU Ecolabel represents a competitive advantage for their hotels, even though they have never considered applying for the Ecolabel certification. Most commonly, this is due to the lack of information about the EU Ecolabel; the difficulty of satisfying the required criteria (especially when it comes to energy, waste and water management); or the lack of awareness and interest from the buyers for the Ecolabel. Conaghan et al. (2010) find that tourism businesses are usually unclear about the aim and purpose of eco-certificates because there are so many of them, and they do not see any direct personal and competitive benefit in implementing them. However, the authors also find that in Ireland there is a positive correlation between eco-certificates and labels, and demand for destinations where these certificates and labels have been implemented. Similarly, Cucculelli and Goffi (2016) also find this to be true for several smaller Italian destinations. Testing the Ritchie and Crouch (2000) model of destination competitiveness on Italian destinations of excellence, the authors report a positive effect of eco-labels for the destinations (Orange Flag, Blue Flag, Blue Sail and Most Beautiful Villages in Italy), increasing their competitiveness. Ultimately, Blancas et al. (2015) propose the Sustainable Tourism Country-Brand Ranking as a globally recognizable system of certificates which would allow transparency and comparison between destinations. The destination in turn attains an improved image, with a better position on the tourism market while also affecting tourism demand, as well as providing tourists with the assurance that their products and services are of high quality.

As for changes in demand, Dolnicar (2004) shows that in Australia there is a considerable niche of tourists who are interested in preserving and protecting the unique natural landscape and environment. These tourists stay at tourism destinations for a longer time, they spend more, they are more satisfied, and they want to return to the destination and recommend it to others. This niche of tourists has a different worldview, they behave ethically and responsibly when it comes to the environment, and what is more, they are ready to pay extra for services which correspond to their principles (Dolnicar and Long, 2009). Subsequent research by Karlsson and Dolnicar (2015) found that eco-certificate influence certain profiles of tourists; they conclude that there is a specific market

segment which responds to this influence – these consumers have different interests and knowledges, which is why they are ready to pay a higher price. In this respect, Ardoin et al. (2015) identify a certain positive effect on tourists who travel to destinations with marked by sustainable tourism development and then return to their usual surrounding. The changes in behavior become evident in their shopping, expenditures, demand for eco-products, using public transportation, proper waste disposal, volunteering, making donations, etc. The authors conclude that the changes in attitudes and behavior can be traced to the individuals themselves and their desire to learn, but even more so it can be traced to the tourism product which offers them the relevant knowledge and targeted information presented in a way as to really entice demand.

## RESEARCH METHODOLOGY

Research on the influence of eco-certificates and labels on supply and demand in the tourism industry was conducted in eight urban destinations in Croatia. The criteria for selecting a given city were their scope and the degree of tourism development of the urban destination. The Republic of Croatia is divided into two NUTS 2 regions (Adriatic Croatia and Continental Croatia) and 21 counties (NUTS 3), with a total of 128 cities. Adriatic Croatia is significantly more developed when it comes to tourism than Continental Croatia (CBS, 2020); it accounts for circa 90% of the total tourism arrivals in Croatia. The number of tourist arrivals and overnights are not only the basic indicators of tourism development (Vukonić and Čavlek, 2001) but also indicators for the tourism carrying capacity of a given destination (along with some other indications). Based on these criteria, the sample covers cities with the largest number of overnight stays according to 2015 statistical data covering Continental and Adriatic Croatia (Table 1).



| DESTINATION | NUMBER OF OVERNIGHTS | TOUR. DENSITY | TOUR. INTENSITY | TOUR. FUNCTIONALITY |
|-------------|----------------------|---------------|-----------------|---------------------|
| Krapina     | 5,473                | 125.73        | 0.43            | 0.89                |
| Karlovac    | 39,834               | 99.09         | 0.72            | 0.79                |
| Osijek      | 84,806               | 498.86        | 0.78            | 0.99                |
| Varaždin    | 50,882               | 855.73        | 1.08            | 2.30                |
| Zadar       | 1,433,701            | 7,390.21      | 19.10           | 29.16               |
| Split       | 1,339,598            | 16,886.40     | 7.52            | 12.02               |
| Mali Lošinj | 1,827,232            | 8,193.87      | 217.84          | 288.04              |
| Rovinj      | 3,141,925            | 35,703.69     | 219.81          | 257.74              |

Table 1. Sample of cities as the urban destinations included in the research (according to 2015 data)

Source: made by the authors based on the CBS, 2016 data

The table shows that the selected urban destinations differ in terms of their tourism development. Cities in Continental Croatia fall significantly behind the cities in Adriatic Croatia, and they are still in the phase of exploring and entering the tourism market. At the same time, urban destinations in Adriatic Croatia are faced with an overload in carrying capacity and sustainability as a tourism destination.

There are four basic stakeholder groups in a destination: the public and private sector (tourism supply) as well as the local population – being the stakeholders within a destination’s immediate surroundings – and tourists, being the stakeholders from the outer surroundings of a destination (Byrd et al., 2009; Waligo et al., 2013). These four groups of stakeholders were given a semi-structured questionnaire and asked to rate the influence of eco-certificates on tourists’ decisions when choosing a destination, as well as their readiness to pay the higher rates. The research was conducted in 2015 and 2016. The relevant stakeholders of the destination were included in the tourism supply sample (the public and private sector and the civil society). The local population and tourists were randomly chosen. Table 2 shows the sample of respondents according to stakeholder group and city.

| Stakeholder group | Continental Croatia |          |        |          | Adriatic Croatia |        |             |        |          |
|-------------------|---------------------|----------|--------|----------|------------------|--------|-------------|--------|----------|
|                   | Krapina             | Karlovac | Osijek | Varaždin | Zadar            | Split  | Mali Lošinj | Rovinj | Total    |
| Tourism supply    | 22.00               | 19.00    | 25.00  | 33.00    | 35.00            | 43.00  | 22.00       | 31.00  | 230.00   |
| Local population  | 80.00               | 99.00    | 125.00 | 101.00   | 250.00           | 189.00 | 123.00      | 135.00 | 1,102.00 |
| Tourists          | 54.00               | 78.00    | 86.00  | 104.00   | 323.00           | 107.00 | 114.00      | 102.00 | 968.00   |
| Total             | 156.00              | 196.00   | 236.00 | 238.00   | 608.00           | 339.00 | 259.00      | 268.00 | 2,300.00 |

Table 2. *Sample of respondents according to stakeholder group and city*

Source: *made by the authors*

The questionnaire was offered in eight different languages. It contained other questions; however, these are not relevant for the current paper. For the purposes of the questionnaire and for the sake of clarity (large number of eco-certificates and labels), the eco-certificates were made generic, and were placed in relation to basic tourist capacities (accommodation, restaurants, etc.) Variance analysis was used in order to determine the attitudes of each stakeholder group in the eight urban destinations, asked about the influence of an urban destination having an eco-certificate on tourists’ decision to visit the destination and pay extra for it.

## RESEARCH RESULTS

Attitudes on the influence of eco-certificates on tourists' decisions when choosing a certified destination was rated from -2 (extremely negative influence) to 2 (extremely positive influence). The total ratings (mean values) are shown in the next table.

| Eco-certificate  | Stakeholder group | Continental Croatia |          |        |          | Adriatic Croatia |       |             |        | Total |
|--|-------------------|---------------------|----------|--------|----------|------------------|-------|-------------|--------|-------|
|  |                   | Krapina             | Karlovac | Osijek | Varaždin | Zadar            | Split | Mali Lošini | Rovinj |       |
| Eco-certified food in restaurants and accommodation capacities | Tourism supply    | 1.00                | 1.20     | 1.31   | 1.25     | 1.23             | 1.06  | 1.29        | 0.93   | 1.16  |
|  | Local population  | 1.07                | 1.04     | 1.23   | 1.32     | 1.10             | 0.95  | 0.93        | 0.97   | 1.08  |
|  | Tourists          | 1.49                | 1.29     | 0.89   | 1.28     | 1.02             | 0.83  | 1.05        | 1.04   | 1.11  |
|  | Total             | 1.21                | 1.15     | 1.11   | 1.29     | 1.07             | 0.92  | 1.01        | 0.99   | 1.12  |
| Eco-certified accommodation capacities                         | Tourism supply    | 0.79                | 1.20     | 1.20   | 0.96     | 0.67             | 1.03  | 1.00        | 0.93   | 0.97  |
|  | Local population  | 1.04                | 0.77     | 0.87   | 1.11     | 0.96             | 0.77  | 0.74        | 0.53   | 0.85  |
|  | Tourists          | 1.46                | 1.02     | 0.55   | 1.23     | 1.00             | 0.56  | 0.71        | 0.91   | 0.93  |
|  | Total             | 1.16                | 0.90     | 0.78   | 1.15     | 0.97             | 0.73  | 0.75        | 0.71   | 0.92  |
| Eco-certified beaches  | Tourism supply    | 0.92                | 1.43     | 1.63   | 1.16     | 1.37             | 1.23  | 1.14        | 1.10   | 1.25  |
|  | Local population  | 0.68                | 1.20     | 0.90   | 1.00     | 1.36             | 1.17  | 0.92        | 1.08   | 1.04  |
|  | Tourists          | 1.12                | 1.06     | 0.29   | 1.21     | 1.18             | 1.16  | 0.89        | 1.08   | 1.00  |
|  | Total             | 0.86                | 1.16     | 0.73   | 1.12     | 1.26             | 1.17  | 0.93        | 1.08   | 1.09  |
| Eco-certified products in stores                               | Tourism supply    | 1.16                | 1.07     | 1.20   | 1.20     | 1.23             | 0.94  | 1.25        | 0.93   | 1.12  |
|  | Local population  | 1.01                | 0.80     | 1.02   | 1.05     | 1.17             | 0.94  | 0.92        | 0.86   | 0.97  |
|  | Tourists          | 1.24                | 0.96     | 0.50   | 0.93     | 0.92             | 0.61  | 0.95        | 0.53   | 0.87  |
|  | Total             | 1.11                | 0.88     | 0.83   | 1.02     | 1.03             | 0.83  | 0.96        | 0.86   | 0.99  |
| Eco-certified public transportation                            | Tourism supply    | 0.88                | 0.67     | 1.06   | 0.79     | 0.47             | 0.77  | 0.50        | 0.93   | 0.76  |
|  | Local population  | 0.92                | 0.07     | 0.73   | 0.89     | 0.76             | 0.42  | 0.61        | 0.49   | 0.61  |
|  | Tourists          | 1.25                | 0.94     | 0.45   | 1.02     | 0.92             | 0.66  | 0.50        | 0.53   | 0.82  |
|  | Total             | 1.03                | 0.45     | 0.66   | 0.94     | 0.84             | 0.54  | 0.55        | 0.66   | 0.73  |
| Eco-certified tourism destination                              | Tourism supply    | 1.12                | 1.20     | 1.44   | 1.16     | 1.20             | 0.94  | 1.26        | 1.00   | 1.16  |
|  | Local population  | 1.00                | 1.01     | 0.97   | 1.23     | 1.21             | 0.97  | 1.02        | 0.92   | 1.04  |
|  | Tourists          | 1.37                | 1.19     | 0.66   | 1.22     | 1.12             | 0.88  | 0.90        | 0.99   | 1.04  |
|  | Total             | 1.15                | 1.10     | 0.89   | 1.22     | 1.16             | 0.94  | 0.98        | 0.96   | 1.08  |
| Certified energy efficient accommodation capacities            | Tourism supply    | 1.18                | 1.07     | 1.31   | 0.91     | 0.81             | 0.88  | 0.86        | 1.00   | 1.00  |
|  | Local population  | 0.89                | 0.56     | 0.84   | 1.03     | 0.92             | 0.70  | 0.84        | 0.29   | 0.76  |
|  | Tourists          | 1.23                | 1.03     | 0.59   | 1.20     | 1.09             | 0.52  | 0.75        | 0.76   | 0.90  |
|  | Total             | 1.05                | 0.79     | 0.79   | 1.10     | 1.01             | 0.66  | 0.80        | 0.54   | 0.89  |

Table 3. Stakeholders' attitudes toward the influence of eco-certificates on tourists' decisions when choosing an urban destination which holds an eco-certificate (mean value)

Source: made by the authors

There are no negative mean values for the urban destinations and stakeholders, with more than half of the mean values going over 1 (positive influence). Therefore, it may be stated that there is a widespread attitude that eco-certificates have a positive effect on tourists' decisions when choosing an urban destination. Positive perceptions of respondents indicate increasing environmental awareness, and the presence and importance of eco-certificates in tourism (Eco Label Index, 2020; European

Commission, 2020). It is also evident that eco-certificates vary in ratings across urban destinations; regionally speaking, it is interesting that the highest ratings are given to continental destinations, which are significantly less developed in terms of tourism. The reasons for this may be ascribed to a lower level of tourism development and perception about the importance of eco-certificates in future development of a destination. The level of tourism development in a destination should not be necessarily a condition for the implementation of eco-certificates, however it can be one of the tools for destination development or a mean of diversification and competitiveness in the tourism market (Medina et al., 2012; Segarra Oña et al., 2012; Blancas et al., 2015; Capacci et al., 2015; Molina Azorín et al., 2015). Furthermore, on the level of all urban destinations, the tourism supply gave the highest rating to the influence of the eco-certificates in question; therefore, it seems that there is an awareness regarding the importance of having an eco-certificate at the destination. This is also in accordance with previous research where tourist supply clearly recognized the importance of eco-certificates and labels, although it did not always see the direct benefits of their application (Ayuso, 2007; Conaghan et al., 2010; Buckley, 2012; Karlsson and Dolnicar, 2015; Barbulescu et al., 2019), while tourist were not ready to pay extra for a product, service or destination which had an eco-certificate (Chamorro Mera and García Gallego, 2019). Somewhat lower ratings in confirmation of this were given by tourists when asked about the importance of eco-certificates in choosing a destination, as eco-certificates signal a certain level of quality and uniqueness in doing business. The local population gave the lowest ratings on average, which suggests possible misconceptions about the role of eco-certificates in tourism. Such results are not surprising considering the large number of different certificates which are often unrecognized and understood by the users (Marx, 2014). Ultimately, eco-certified products in restaurants and accommodation capacities were rated the highest on average, while eco-certified public transportation was rated the lowest. This is due to the fact that local and ecologically produced food has become an important factor of a lifestyle and living healthily (Tselempis et al., 2019). Furthermore, on the level of each urban destination, it was also tested whether there are statistically significant differences in attitudes across stakeholder groups when it comes to the influence of eco-certificates on tourists' decision when choosing a destination (Table 4).

| p-values, with significance levels of 5%                       | Continental Croatia |          |        |          | Adriatic Croatia |       |             |        |
|--|---------------------|----------|--------|----------|------------------|-------|-------------|--------|
|  | Krapina             | Karlovac | Osijek | Varaždin | Zadar            | Split | Mali Lošinj | Rovinj |
| Eco-certified food in restaurants and accommodation capacities | 0.481               | 0.794    | 0.096  | 0.012    | 0.000            | 0.014 | 0.212       | 0.001  |
| Eco-certified accommodation                                    | 0.649               | 0.217    | 0.270  | 0.750    | 0.011            | 0.040 | 0.406       | 0.000  |
| Eco-certified beaches  | 0.545               | 0.839    | 0.361  | 0.100    | 0.087            | 0.053 | 0.566       | 0.000  |
| Eco-certified products in stores                               | 0.205               | 0.907    | 0.079  | 0.001    | 0.004            | 0.008 | 0.059       | 0.001  |
| Eco-certified public transportation                            | 0.178               | 0.079    | 0.539  | 0.850    | 0.000            | 0.039 | 0.902       | 0.000  |
| Eco-certified tourism destination                              | 0.332               | 0.653    | 0.212  | 0.014    | 0.004            | 0.000 | 0.302       | 0.000  |

|   |       |       |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Certified energy efficient accommodation capacities | 0.909 | 0.075 | 0.294 | 0.613 | 0.000 | 0.279 | 0.494 | 0.000 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|

Table 4. Differences in attitudes of stakeholders in each destination with regard to whether tourists are ready to pay extra for a product or service which has an eco-certificate (ANOVA, p-values,  $\alpha=0.05$ )

Source: made by the authors

With 5% significance level and the corresponding degrees of freedom and empirical F-ratios, it may be concluded based on the p-values that there are generally no statistically significant differences in attitudes of stakeholders in each particular urban destination with regard to whether tourists are ready to pay extra for a given product, service or destination (food, accommodation, products in stores, public transportation, overall destination) which holds an eco-certificate. This is particularly evident in continental destinations. When it comes to Adriatic destinations, which are on the higher level of tourism development, the situation is reversed. However, it should be noted that it is only in Mali Lošinj that there are no statistically significant differences in attitudes across stakeholder groups. In fact, Mali Lošinj being so oriented towards sustainable tourism and eco-certification has led to a certain consensus among all stakeholders that paying more for ecological products is to be expected. Variance analysis was also done on the level of all urban destinations according to stakeholder group, in order to determine whether there are differences in stakeholder attitude with regard to a specific eco-certificate (Table 5).

| p-values, with significance levels of 5%                       | Tourism supply | Local population | Tourists | Across stakeholder |
|--|----------------|------------------|----------|--------------------|
| Eco-certified food in restaurants and accommodation capacities | 0.000          | 0.004            | 0.000    | 0.579              |
| Eco-certified accommodation capacities                         | 0.000          | 0.004            | 0.000    | 0.108              |
| Eco-certified beaches  | 0.001          | 0.000            | 0.000    | 0.044              |
| Eco-certified products in stores                               | 0.000          | 0.189            | 0.000    | 0.001              |
| Eco-certified public transportation                            | 0.000          | 0.000            | 0.000    | 0.000              |
| Eco-certified tourism destination                              | 0.000          | 0.163            | 0.000    | 0.503              |
| Certified energy efficient accommodation                       | 0.000          | 0.000            | 0.000    | 0.503              |

Table 5. Differences in individual stakeholder group attitudes toward the influence of eco-certificates on tourists' decisions when choosing a destination (ANOVA, p-values,  $\alpha=0.05$ )

Source: made by the authors

On the level of all urban destinations in question and the same group of stakeholders, it can be concluded that there are major statistically significant differences in rating individual eco-certificates – the same stakeholder group rates the significance of a given eco-certificate differently (except when it comes to eco-certified products in stores and eco-certified tourism destinations in the case of the local population). However, if the attitudes are compared across stakeholder groups, it is evident that there are no differences for four of the eco-certificates, whereas there are statistically significant differences

in attitudes across stakeholder groups regarding the influence of eco-certificates on tourists' decisions when choosing a destination. Therefore, some eco-certificates are equally important to all stakeholder groups, whereas this is not the case with other eco-certificates.

Finally, having an eco-certificate is associated with the readiness on the part of the consumer to pay a higher price for the same type of product. This is why respondents from each stakeholder group gave their opinion with regard to whether tourists are ready to pay extra for a product, service or destination which has an eco-certificate. The respondents were allowed to express either a positive or a negative attitude about this, or otherwise, express uncertainty. The majority of the respondents thinks that tourists are willing to pay extra for eco-certified food in restaurants and accommodation capacities (64%), with as high as 78% of these being respondents from the tourism supply. Respondents also believe that tourists would pay extra if the tourism destination in question owned an eco-certificate (53%) as well as eco-certified products in stores (52%). Additionally, it is the attitude of the respondents that tourists are least likely to pay for eco-certified public transportation (33%). Just as is the case with influencing tourists' decisions, a positive attitude in that respect is the most prevalent in continental destinations (particularly for Karlovac), whereas in the Adriatic region Mali Lošinj stands out. This may be due to the fact that Mali Lošinj has been awarded several world-renowned awards and certificates for sustainable tourism (Green Destinations Collection, 2020). It is no surprise, therefore, that tourists in Mali Lošinj are aware of that. Furthermore, on the level of urban destinations, a positive attitude is most pronounced in the tourism supply, whereas tourists are on average the least ready to pay extra for the eco-certificate. The tourism supply respondents found that tourists are ready to pay extra for eco-certificates in every category, whereas tourists' attitudes indicate they are significantly less likely to do so. These findings correlate with other past research (Chamorro Mera and García Gallego, 2019). Thus, a different value perception of an eco-certification category is also visible here. Eco-certificates are most important for the tourist supply, but it does not mean they have implemented them in their business. The attitude of tourists regarding the readiness to pay a higher price for eco-certified products and services raises the question of their presence in the tourism market and the real benefits they provide to their users, but also the awareness of all stakeholders on sustainable tourism development.

## **IMPLICATIONS AND PROPOSITIONS FOR FUTURE RESEARCH**

Based on these findings, it can be concluded that the implementation of eco-certificates and labels correlates with a higher level of tourism development, whose focus is development control, quality improvement and other monitoring measures. According to Butler's (1980) concept of a tourist area cycle, the destination rejuvenation phase (higher level of tourism development) could be achieved by

adopting the principles of sustainable tourism which certainly include implementation of eco-certificates and labels. Different attitudes of destination stakeholders pointed out the necessity for further research and different approach focusing on a particular stakeholder group, aiming to better understand their needs and real benefits of applying eco-certificates and labels.

These results also indicated there are certain preferences for a particular eco-certificate related to environmental awareness or living standards and lifestyles. In this context, each destination can choose its niche to be diversified and recognized on the tourism market. In doing so, the destination can select certificates which are recognized in individual inbound tourism market. Since certificates in this research were generalized, the importance of certain eco-certificate at the global, regional and local level should be examined in further research.

Finally, these results also gave a space for further research on tourists to find a niche of tourist demand regarding the pro-ecological behavior, a specific area of ecological certification or globally recognized eco-certificates. The commitment of entire destination and unique communication towards the tourism market is very important, which is shown by the example of Mali Lošinj, which succeeded in that.

## CONCLUSION

Even though eco-certificates and labels have been around for years on the tourism market, it seems their role is not widely understood and accepted. This may be due to the wide variety and number of certificate and label programs. The large number may, however, point to their growing significance on the tourism market, which is why programs are continually being developed on a global scale, which facilitate visibility and comparability between various certificates and labels. Furthermore, the number of national certification programs is also growing, probably due to easier management and goal achievement for each particular program of eco-certificates and labels. Research also shows a certain degree of their implementation in a given destination; however, practical and real benefits for the tourism product are not particularly clear or visible. On the other hand, demand in the tourism industry changes behavioral patterns, and a growing ecological awareness leads the tourism supply to satisfy those specific needs. In order for specific elements of a tourism product – or in fact the entire destination – to get certified, a balance needs to be achieved between the wants and needs of the consumer on the one hand, and their fatigue when it comes to being constantly exposed to calls for sustainability. The research conducted within this paper is considered as research in the process. The aim of this paper was to determine the differences in attitudes toward eco-certificates from particular stakeholder groups in tourism destinations across varying degrees of tourism development. The stakeholder groups in tourism destinations were defined as tourists, the tourism supply and the local

population. The interests of these stakeholders are usually conflicting within a given tourism destination, which is why it was particularly interesting to explore their attitudes toward eco-certification and their inclination to value that form of action better.

The research conducted on different stakeholder groups across eight urban destinations in Croatia shows a generally positive attitude toward eco-certificates. However, there are visible discrepancies in stakeholders' attitudes when it comes to the influence of eco-certificates on tourists' decisions when choosing their destination; specifically, their readiness to pay extra for eco-certified products and services at a given destination. These differences are visible on the level of each particular destination, with the stakeholders' attitudes being more positive in continental destinations which are less developed when it comes to tourism. Variance analysis also shows differences in attitudes between different stakeholder groups, with the tourism supply being the most aware of the importance of eco-certificates for a destination. On the other hand, when choosing their destination, tourists are not particularly influenced by a destination having certification, and they are not inclined to pay extra. The importance of a particular eco-certificate was also valued varyingly, which is why the most important eco-certificate in total was eco-certified food in restaurants and accommodation capacities, whereas the least important was eco-certified public transportation. Finally, among the Adriatic destinations, Mali Lošinj stands out as a destination oriented towards implementing sustainable development, which was confirmed by every stakeholder group.

The results of this and previous research indicate a growing presence and importance of eco-certificates and labels on the tourism market. This is due to the fact that many tourism-developed destinations are faced with negative impacts which require mitigation, especially by preserving and protecting the environment as that resource which is fundamental for any and all tourism activities. Adopting eco-certificates and labels facilitates and promotes ecologically aware behavior in the tourism industry. This is also a means of communication on the tourism market, as destinations can signal that they are different and ecologically responsible. Consequently, this stimulates tourism demand for eco-certified products which guarantee quality and have a reduced negative effect on the environment. Therefore, considering the fact that the principles and goals of sustainable tourism are increasingly becoming competitive elements on the tourism market, it is to be expected that the application of eco-certificates and labels in tourism will be of great importance in the future. In this respect, this subject and similar issues need to be further studied in destinations which develop different forms of tourism. It is also recommended that this same and expanded methodology be used for research (measurement instruments, etc.), in order to measure in more detail some of the characteristics of the behavior of tourists and other relevant stakeholders in the context of sustainable tourism.

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## A THEORETICAL APPROACH TO COST OF CAPITAL EVALUATION FROM A KNOWLEDGE MANAGEMENT PERSPECTIVE

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### ABSTRACT

Capital-based economies and firms define their entrepreneurial purposes fundamentally considering debt and equity costs at the basis of the decision-making about business investments. Although basically divided into risk-free compensation and risk premium, the cost of capital calculation has attracted the interest of much research, essentially attributable to a business economics approach and a financial economics approach, but many profiles concerning this concept and its related calculation methods remain still unexplored. This theoretical paper examines how the cost of capital can be analyzed from a knowledge management perspective, and in this respect a conceptual comparison method has been adopted. Through speculative reasoning, the economic profit ratio, using as denominator the total assets and not the turnover, has been detected as potential measure of the differential knowledge management, with consequent scientific and managerial implications.

*Keywords: Cost of capital; Capital structure; Risk premium; WACC; Knowledge management; Economic profit.*

### 1. INTRODUCTION.

The cost of capital is a significant category of business and financial economics. It determines substantially the minimum required profit of the entrepreneur and gives also financial evidence for the break-even point calculation, where total revenues cover total costs, including the risk-adjusted expected return for the entrepreneur, considered on behalf of the firm as the cost of the provided equity.

In fact, the cost of capital includes not only the short, medium, or long term loans rate, but also the estimated price of the capital that has been invested by the owner structure, calculated as sum of the risk-free interest/compensation rate and the required risk-premium rate. As a risk-free rate,

government bonds yield is usually considered: put it practically, it is the amount of money which would be earned by the lender/owner of the capital if the money would not have been invested into the business but into the government bond with assumably the lowest (perhaps even zero) risk.

Naturally, taking business also means an additional risk that needs compensation. The entrepreneur requires a risk premium for her/his invested capital that arises as an extra profit requirement compared to the investment into government bonds, even superior also to the cost of the lended capital, which at the same time needs embedding a risk-premium component on the basis of the contextual investment situation.

Moreover, calculating the global value of the cost of capital is an operation that is strictly connected to the determination of the opportunity cost, to be intended as the amount of money that is immolated when capital has been invested into a specific business and not into another business/opportunity, which then becomes a benchmark for the calculation of the opportunity cost; basically, in fact, it is the best alternative opportunity with almost equivalent or even minor risk. Naturally, the above-mentioned approach about the opportunity cost is specific for every single sector, and then, in order to determine it, it is generally reasonable to choose as benchmark the average profit of the enterprises operating in the given or in the nearest industry: if the actual yields do not reach regularly the risk-adjusted expected return, investors (most of all stockholders, but even lenders, being both source insurers) could leave the investment and look for other options.

In advanced market economies, where the tracking of profitability is ever more essential (Szóka, 2018), companies are organized typically on a capital basis, meaning that, apart from few peculiar exceptions, mostly due to extraordinary decisions about fiscal and/or monetary policies, money represents a scarce resource; that is why the decision-making system of whatever organization is determined essentially by capital owners – also in a public company, at the end, the board of directors have to respond to the shareholders' assembly – should they be oriented to profit or non-profit purposes. Thus, the comparison with alternative investment options is capital-based fundamentally, meaning that the cost of capital is determined usually on a financial basis for capital-based ownership firms, summarizing both the risk-free and the risk-premium expectations (also for loans, but specifically for equity).

However, with the evolution of mature economies, the concept of 'capital' has been object of further consideration and reconsideration, most of all in the light of immaterial assets, feeding an innovative category of capital that is recognized universally as 'intellectual capital', which nowadays can contribute dramatically to business success (Chen et al., 2005; Baklouti et al., 2010). In this process, a

fundamental role has been exerted by business knowledge, that allows analysing, understanding, and managing capital issues evaluation, nonetheless those related to the cost of capital, with ever more attention, awareness, and efficiency (Velmurugan, 2010; Fathollahi et al., 2017): thus, general aim of the research is to analyze the potential influence of knowledge management on the evaluation of the cost of capital, while specific purpose is the detection of a possible indicator for appraising, always from a knowledge management perspective, the opportunity cost in particular.

In this respect, the paper is structured as follows: after a literature review focused on traditional approaches to the calculation of the cost of capital, a theoretical reasoning/framework is proposed for solving potential bias of these approaches, with peculiar emphasis on knowledge management processes. Subsequent implications, even though mitigated by some limits of the investigation, complete the study.

## **2. LITERATURE REVIEW ON TRADITIONAL APPROACHES TO THE COST OF CAPITAL CALCULATION.**

When reasoning about how attracting and compensating the money that is necessary for the organization functioning, both debt costs and equity costs must be taken into consideration. And again for both, opportunity cost is a fundamental concept: although it is evident also for debts (for example, a bank that should decide which enterprise to finance with minor risk, or major return, or better risk / return ratio), the opportunity cost is indeed a typical category of entrepreneurial cost, and quite probably the most insidious to calculate.

As aforementioned, the first parameter to take into consideration is the industry average profit – or if missing the nearest industry one – but it is understandable that the risk of a specific company may even differ from the industry average: these individual factors can be included in the calculation if the risky part is adjusted with a single risk value, which usually is expressed by the  $\beta$  value, as will be analysed in details further. In fact, it is generally assumed that if  $\beta < 1$ , then the risk under consideration falls below the industry average risk (and thus also the expected return, as mirror of the opportunity cost, should decrease), whereas if  $\beta > 1$ , then it raises above (Illés, 1997).

In this respect, the most common formula for calculating the required rate of return for an equity investment, or the cost of the equity capital, or also the opportunity cost from the stockholder point of view, is the Capital Asset Pricing Model (CAPM) (Sharpe, 1964), which can be represented with some adjustments as follows (Juhász, 2012):

$$(1) \quad i = r_f + (r_m - r_f) * \beta$$

where

|             |   |  |
|-------------|---|--|
| $i$         | = | required rate of return (%)  |
| $r_f$       | = | government bonds yield as risk-free investment (or the least risky) return (%) |
| $r_m$       | = | historical/expected/average return of the given market (%)                     |
| $\beta$     | = | specific risk for a given firm   |
| $r_m - r_f$ | = | risk premium of the given market over risk-free rate                           |

However, there is no unified scientific opinion on which capital elements are universally valid in this context, because the above formula could be adopted from a methodological point of view also by lenders (and not only by entrepreneurs), although it represents a typical stockholders' concept; moreover, this uncertainty is even truer when assuming the immaterial assets point of view that has been abovementioned and on which the subsequent reasoning will be mainly based (Festa et al., 2017). Two fundamental perspectives are object of analysis in the following scientific literature review, in order to put them at the basis of the theoretical framework that will be developed, i.e. the business economics approach and the financial economics approach.

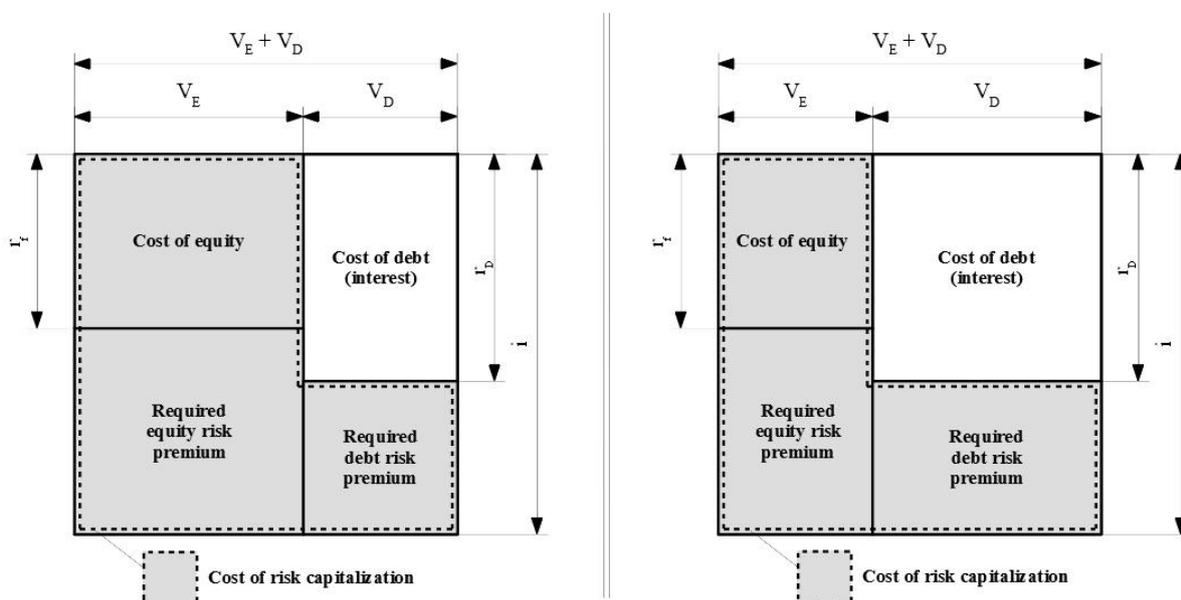
### **2.1. *An internal perspective: The business economics approach.***

The sector under analysis is a relevant element to take into consideration when trying to determine the risk premium to embed into the opportunity cost. According to a business economics approach, it is important to understand where the risk is realised and the consequent risk premium should be charged: in most cases, this evaluation is strictly connected to the entrepreneurial potentiality to be further expressed as competitiveness on the market.

In fact, customers do not consider whether the entrepreneur has financed the business, the enterprise, or the assets using equity or debt: from a commercial point of view, it is indifferent for the market how the capital structure of the company has been built up, and because the risk on the market is determined fundamentally by the decisions of the customers, the capital structure should be indifferent from an external marketing perspective. In other words, the commercial success on the market simply could consider the global cost for the sum of debt and equity as the same: for example to take under control the global cost of capital for a successful pricing strategy on the market, it is quite indifferent for buying individuals if the capital structure is composed of capital belonging to third parties or stockholders or both.

In truth, the difference is that the enterprise pays interests on the debt that constitute expenses, so this part of the global capital return to compensate the lenders can be accounted as a cost: instead, the cost of using equity and the consequent risk premium are not costs to deduct from taxable income but arise as profit requirements. The interest is typically lower than the cost of using equity, but the lender, although not assuming an entrepreneurial or as abovementioned commercial risk, does undertake indeed some risk when lending capital to the enterprise, just because she/he is called to assume an investment decision among different options. This risk does not include the market risk, but only a part of it, considering that commercial risk influences directly the entrepreneurial capacity of solvency and then indirectly the lender risk; whereas this influence is direct for the stockholders, and that is why there is a defined entrepreneurial profit expectation over the interest of third parties capital (Illés, 2004).

Thus, assuming a business economics approach, the total expectation about the global cost of capital is the same for debt and equity when considered as alternatives. However, in the case of debt, its cost appears as a business cost, although discernible between operating and/or financial, thus limiting the overall impact of the cost of capital; then, a capital structure with more debt, as shown in the right section of Fig. 1, should be more desirable from a business point of view ( $r_D$  minor than  $i$ , with further utilities emerging from tax leverage).



*Figure 1. Debt and equity cost in the business economics approach in the case of different capital structures. Adaptation from Kolozár and Kállay (2018).*

It is evident the possible contribution of knowledge management in supporting the decisions about the cost of capital: in fact, if the entrepreneurs and/or managers have the capacity and the ability of building a huge and efficient business knowledge base, through internal and external sources

(Shahabadi et al., 2018), market success could become more likely and/or market failure could be more unlikely (Carneiro, 2000), at least with respect to other enterprises with lesser capacity/ability, thus influencing also the choices about the financial structure composition (Miglietta et al., 2018). In fact, according to the business economics approach, the virtual cost of risk capitalization, considered as potential protection from lack of awareness as opposite of business knowledge, could seem indifferent from the outside if focusing only on the level of capital structure that could be able to sustain market strategies and performances; whereas, as shown in Fig. 1, the real cost of the risk capitalization should seem lower from the inside, if considering a major contribution of the debt and if the risk premium due to major indebtedness is sustainable. As further consequence, all other conditions being equal, this situation could also permits financing intellectual capital assets with lesser cost, so activating virtuous circuits (Gao et al., 2008) between the knowledge that can be used for minimizing the impact of the global cost of capital and the knowledge that can be used for maximizing the potentiality of the global return of capital (at the end, assets and liabilities naturally coincide).

## 2.2. *An external perspective: The financial economics approach.*

The explicit expectations of capital owners constitute a very important aspect to take into consideration when estimating the global cost of capital. When adopting a financial economics approach, this evaluation claims that the cost of capital as calculated in (1) is applicable only to equity owners, whereas the lenders of the debt should expect 'only' interests as required rate of return (Illés, 2016).

This means that the return requirement depends only on the capital structure, and that the expectation is also influenced by the proportion of equity and debt. The widely used indicator for this approach should be the weighted average cost of capital (WACC) – even though small and medium sized enterprises seem to still limit the concept of the cost of capital to the interest rate (Rossi, 2014) – which globally considers the impact and the proportion of capital loans and capital stocks (Koller et al., 2010).

$$(2) \quad \text{WACC} = \frac{V_E}{V_E + V_D} * i + \frac{V_D}{V_E + V_D} * r_D * (1 - T_C)$$

where

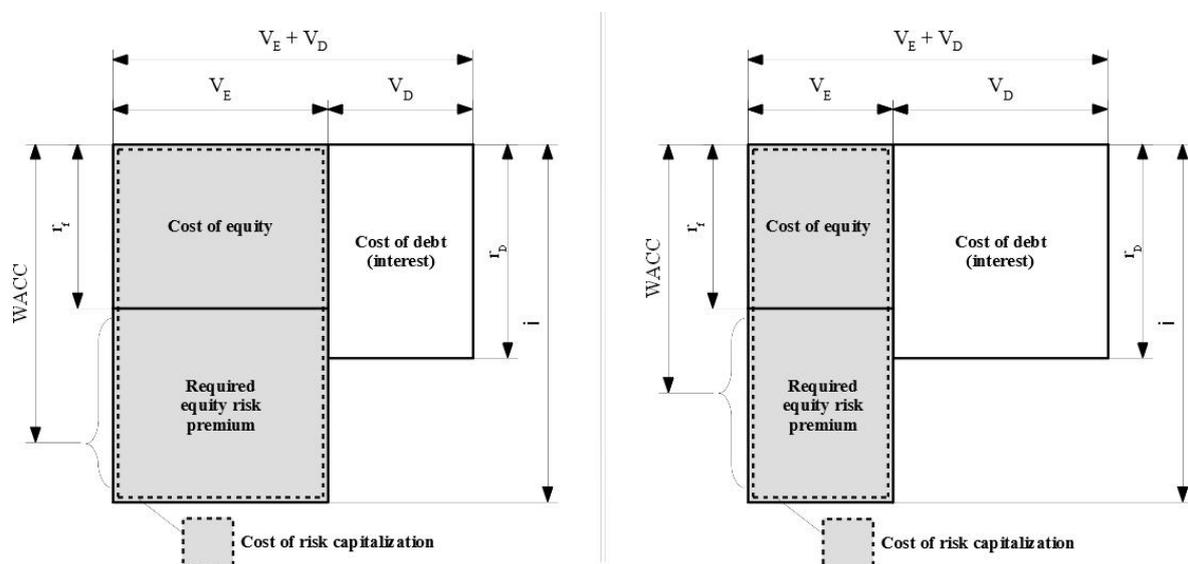
|       |   |  |
|-------|---|--|
| $V_E$ | = | value of the equity (stockholders' capital)    |
| $V_D$ | = | value of the debt (lenders' capital)           |
| $i$   | = | required rate of return (%) as aforecalculated |
| $r_D$ | = | applied rate of interest on the debt (%)       |

$T_c$  = corporate income tax rate

The logic of including the tax rate is that the interest can be accounted as a cost, so the required return on the capital appearing as interest decreases the taxable profit, and thus the consequent taxes in proportion of the tax rate. Moreover, being  $T_c$  a percentage, the impact of the required interest on the net profit can be proportionally reduced by the amount of the tax rate (Rappaport, 1998).

From a strictly financial point of view, while quite relevant from an external perspective (Fatma and Abdelwahed, 2010), it could sound quite indifferent to the enterprise to whom the amount in question should be paid, as a tax to the state or as an interest to the creditor (for example, the bank). In fact, if the cost of capital arises as interest on debts, then it does not generate higher taxes from the taxable income (the enterprise pays the bank and not the state); whereas, if it arises as a return on equity, then it does generate higher taxes from the taxable income (the enterprise pays the state and not the bank).

Adopting the financial economics approach, a higher proportion of third parties' capital means typically a lower (weighted average) cost of capital, because the debts' interest rate is generally lower than the required rate of return as aforecalculated. This consideration could move businesses towards credits and thus to indebtedness (cf. Figure 2) as they should meet lower rates of return when structured with higher debt proportions, naturally all other market and management conditions being equal.



*Figure 2. Debt and equity cost in the financial economics approach in the case of different capital structures. Authors' analysis.*

Also in this case, it is evident the possible contribution of knowledge management in supporting financial decisions about the cost of capital: in fact, if entrepreneurs and/or managers have the

capacity and the ability of building a huge and efficient financial knowledge base, through internal and external sources, financial success could become more likely and/or financial failure could become more unlikely (at least with respect to other enterprises with lesser capacity/ability), thus influencing the choice about the financial structure composition, whose cost of risk capitalization should be, from a financial economics approach, lower if insisting on third parties capital both from a virtual and a real point of view. Naturally, all other conditions being equal, this situation must be managed very carefully, because indebting the financial structure of the enterprise is not costless: first, an appropriate comparison between ROI (Return On Interest, i.e. operating profit on capital invested in core business) and  $r_D$  (considered as overall cost of the debt) should always be indispensable; and second, continuing leveraging on loans would weaken the global financial structure of the enterprise, forcing lenders (banks, for example) to start asking for (higher) debt risk premium.

In this respect, intellectual capital, mostly probably above all in the form of the human (Rodriguez Perez and de Pablo, 2003) and relational (Lucas, 2005) components, could exert a powerful influence (Pew Tan et al., 2007; Maditinos, 2011). As concerns the human capital, the quality of the expertise of entrepreneurs and managers should contribute to find a correct dynamic equilibrium between debt and equity; as concerns the relational capital, the quality of the reputation of the company should contribute to mitigate the expectations of lenders and stockholders concerning their required returns (while most probably amplifying them on the contrary).

### 3. RESEARCH OBJECTIVES AND METHODS.

Moving from the above considerations, the following analysis aims at understanding if it is possible to elaborate a logical construction in which opportunity cost is always appraisable as essential component of the cost of capital, but assuming knowledge management as a pivot perspective for this reasoning. Thus, the research question (RQ) under analysis is the following:

*“In the calculation of the cost of capital, what possible measure of opportunity cost could be directly expressed by knowledge management?”.*

The research, with a theoretical nature, has adopted a method consisting in a reasoning approach that, assuming business economics approach and financial economics approach as pillars for the calculation of the cost of capital, focuses first on possible indicators, and then on possible contradictions in the different formulas. Subsequent reflections should make emerge the evidence through which the contribution of knowledge management could be embedded in a specific measure.

#### 4. THE THEORETICAL ANALYSIS.

##### 4.1. Business performance indicators examination.

One of the fundamental questions in investigating the profitability of a business is how the company can meet the expected requirements in its standard functioning, that is to say, when the normal profit as cost of capital to be achieved by the stockholder, summoned up with all the other costs, let the economic break-even point to be determined. As well-known, this is the level of production or turnover where the profits of the business reach the costs (including required capital returns): in this respect, the correct calculation of the cost of capital is also or even above all a question of which measure to use in the break-even method.

The hypotheses under analysis will be developed theoretically on a knowledge management basis. Starting from this perspective, and considering the two abovementioned approaches, the business economics one and the financial economics one, following comparisons between requirements and performance will be deployed.

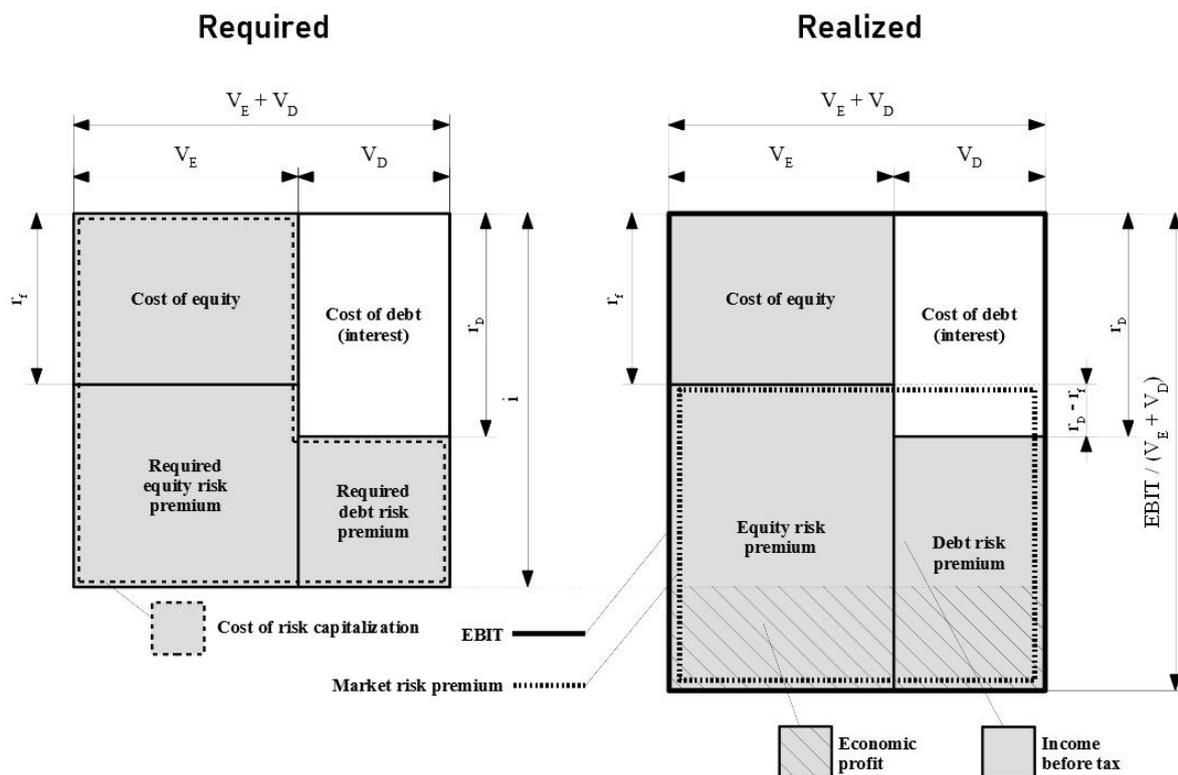


Figure 3. Performance indicators about debt and equity cost and knowledge management returns in the business economics approach. Adaptation from Koloszár and Kállay (2018).

#### 4.2. *Cost of capital measures emerging from differential business knowledge.*

As concerns the business economics approach, the left section of Fig. 3 shows the required rate of return, whereas the right section shows the generated/realized rate of return: some corporate income categories such as EBIT (Earning Before Interests and Taxes), income before tax, market risk premium, and economic profit are marked. The illustrated business situation (the right section) seems to overfulfill the required returns, because an overperforming market risk premium has been realized, embedding economic profit as exceeding value over the expected compensation of the cost of capital. Presumably, this extra quantity has been achievable because the quality of the business knowledge actionable by entrepreneurs and managers has allowed the company to overcome the market competitors, and thus it can be recognized as the return for the superior knowledge management with respect to the sector average. Corporate performances under the required cost of capital can even occur (Kolozsár and Kállay, 2018), giving evidence on the opposite of the inferior knowledge management that has been activated.

Consequently, the 'economic profit ratio', calculated not as economic profit (EP) on global sales revenues (Scherer and Ross, 1994; Asaba and Yamawaki, 2004) but as EP on total capital (similarly to Meghouar and Ibrahim, 2020), which naturally includes also the parts of the intellectual capital that can be appraised and at the end calculated as sum of liabilities and equity, represented as follows:

$$(3) \quad EP / (V_E + V_D)$$

could emerge as potential measure of the efficiency of the differential business knowledge that has been enabled, thus providing first evident answer to the RQ under analysis. Subsequent comparisons of these ratios would highlight the evolution of the business knowledge management through the years.

#### 4.3. *Cost of capital measures emerging from differential financial knowledge.*

As concerns the financial economics approach, the left section of Fig. 4 shows the required rate of return, whereas the right section shows the generated/realized rate of return. As in the previous example, also in this case the hypothesis under investigation provides results exceeding the expectations; because the required return of the capital depends on the capital structure, the realized return should be proportionated and thus not compensating potential major risk for the major debt, differently from the situation illustrated in Figure 3.

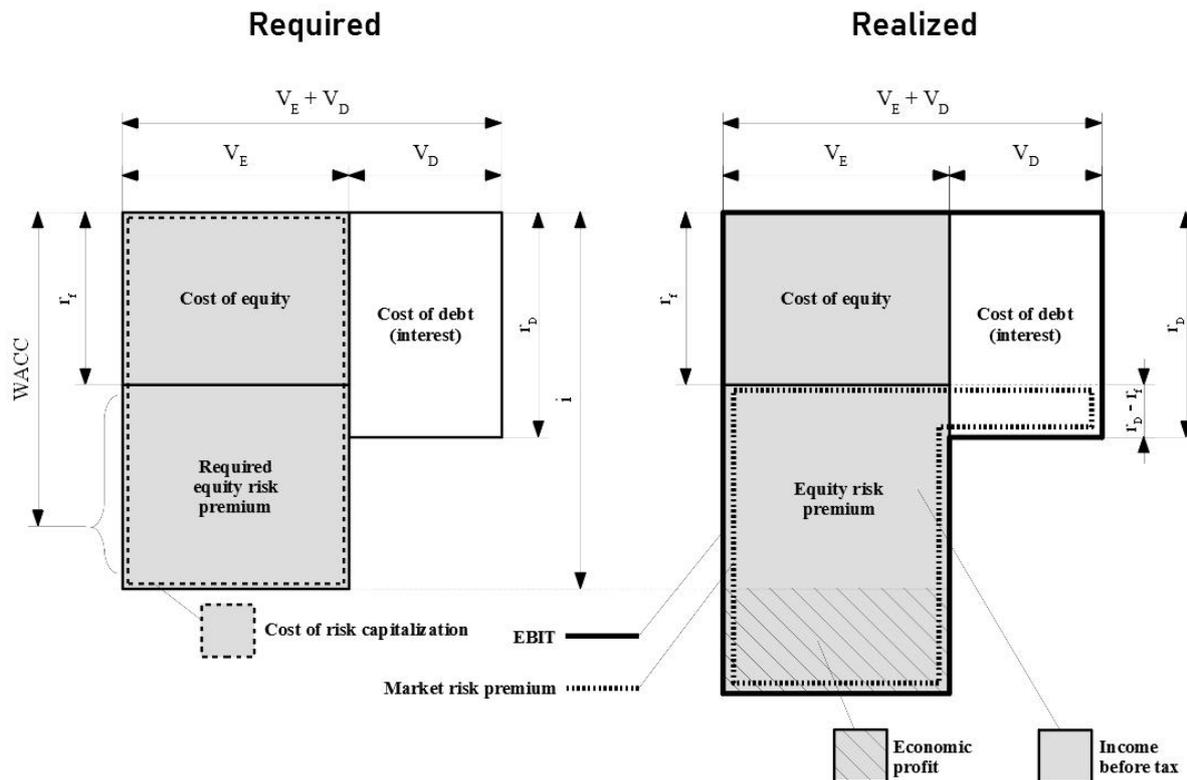


Figure 4. Performance indicators about debt and equity cost and knowledge management returns in the financial economics approach. Authors' analysis.

When calculating the required WACC using (2), with contextual application using (4), it is visible that the resulting quantity from the left side in Fig. 4 is inferior with respect to 'i'. Therefore, in the case of realized return on capital on the right side, WACC must be coherently compared with EBIT divided by the total capital (5) in this approach.

The only element that could be misleading when formulating these requirements is the value of the interest reduced by the tax rate: for correct comparison, this should be applied also to the realized return side and that is why the use of NOPLAT (Net Operating Profit Less Adjusted Taxes) has been advisable, deducting the taxes not only from the interests but also from the income. Unfortunately, this would be correct only if there was an overall, unique, and comparable amount of taxes, but this is clearly impossible because of the complexity, specificity, and variability of the tax legislations; thus, a more correct comparison with WACC should be the quantity that has been provided in the formula (6).

$$(4) \quad WACC = \frac{r_e V_E + r_b V_D (1 - T_C)}{V_E + V_D}$$

$$(5) \quad \frac{EBIT \text{ (or NOPLAT)}}{V_E + V_D}$$

$$(6) \quad \frac{\text{income before tax} + V_D * r_D * (1 - T_C)}{V_E + V_D}$$

In this approach, the return on capital as cost is related only to debt and the return on capital as profit is related only to equity; however, in order to achieve profit, it is necessary to cover all the costs with revenues, so in case of any profit, the interest is definitely reimbursed. This means also that to examine the reachability of the basic or desirable expectations on equity, return on equity (ROE) is a possible indicator; while to examine the reachability of WACC, it is necessary to compare it with (5), as happens for the Economic Value Added (EVA) (Bhasin and Shaikh, 2013).

In all cases, these indicators do not seem to express other knowledge contribution than that one related to the financial structure composition, or maybe that one associated with tax legislation. In other words, it is possible that the financial economics approach could emphasize the utility of the consulting knowledge management rather than the utility of the business knowledge management, assuming that normally an enterprise, above all when small, should have more expertise, also as concerns its intellectual capital, about the core business, and not about financial engineering or tax legislation.

#### *4.4. Theoretical contradictions of the financial economics approach in appraising the opportunity cost from a knowledge management perspective.*

Although both approaches appear to be consistent, with the business economics approach that seems more adequate for business knowledge enhancing, the use of associated concepts and formulas under inappropriate conditions could be misleading. The following reasoning is about how to solve possible contradictions emerging from the two different approaches: most probably, the financial economics approach is more widespread, but its underlying assumptions are not assumable as generally consistent as well (Krishnan and Ramasamy 2011), thus providing consistent opportunity to the reasoning based on the business economics approach.

In fact, the interest rate is typically lower than the required return-on-equity rate, which means that a higher rate of debt can generate lower global return requirements, expressed within the WACC formula. This implies also that the overall cost of capital would be the lowest if only third parties capitals were involved: only theoretically, as indeed will be confuted below, a minimum return of at least  $[i]$  would be required if only equity was involved, while a minimum return of at least  $[r_D * (1 - T_c)]$  would be required if only debt was invested, implying that, depending on the tax rate, even an enterprise with a profitability rate under ' $r_D$ ' can be economical (and in fact, the financial leverage compares ROI and not ROE with the cost-of-debt rate).

If so, why are creditors interested in providing credit also and above all to companies with much higher profitability? For the abovementioned reasons, in fact, the enterprise could find profitability

also with lower ratios, which could even be reinforced by major interest costs through the tax leverage.

And furthermore, why are creditors interested in providing credit also and above all to companies with much higher equity? For the abovementioned reasons, in fact, the enterprise could find profitability also with major debt-to-equity ratios ( $V_D / V_E$ ), which could even reinforce the spread between profitability ratio and WACC.

The essential reason is represented by the risk: in fact, debt owners however take a certain amount of risk about interest return. The primary bearer of the risk of the enterprise is the equity: if the business is not successful, the logical consequence should be the loss of equity; thus, the higher the share of debt, the more likely it means that a potential failure may have some impact on it, so the creditor is anyway interested in finding enough equity in the enterprise to finance for limiting its global risk.

However, in the reality of business it is not logical to assume that if the enterprise would be financed completely with debt instead of equity, the profit expectation will shrink to  $[ r_D * (1 - T_C) ]$  instead of  $[ i ]$ : in fact, the related business risk would not disappear, but it would claim to be embedded in the overall interests, much more risky than before (i.e., in presence of some equity). If a company that earlier has been financed only from equity would increase the debt-to-equity ratio, according to the abovementioned dynamics of the financial economics approach, the WACC will decrease, but the industry's average risk conditions would have not changed, and the consequent business activity can even carry the same risk, logically expanded also to debt owners (with all the limitations of the entrepreneurial responsibility).

In the financial economics approach, this additional risk of leverage is reflected in the beta factor for equity: required rate of return for equity would be based on appropriate calculation, among which the most authoritative is quite probably the CAPM (Modigliani and Miller, 1958; Modigliani and Miller, 1963), which has been already used for the calculation of 'i'. In the beta factor, systematic (market) risk appears primarily, together with consideration also about operating and financial leverage: theoretical consensus is not unanimous on the proportion of the latter (Hamada, 1972; Gahlon and Gentry, 1982; Mandelker and Rhee, 1984), and that is why studies based on the econometric analysis of stock markets data have provided also the exact values of the financial leverage associated with the involvement of debt by distinguishing levered and unlevered beta according to the following formula (Rubinstein, 1973):

$$(7) \quad \text{levered } \beta = \text{unlevered } \beta + \text{unlevered } \beta * (1 - T_C) * \frac{V_D}{V_E}$$

The extra part over unlevered  $\beta$  represents the financial leverage or premium, which is the compensation for the risk on equity due to the involvement of the debt: this risk premium, as part of the levered beta, means that a given asset reacts to market movements on a more sensitive way because of indebtedness. It may be questionable whether in the financial economics approach the beta factor is suitable to handle the overall risk of involving debt: in this respect, as the proportion of equity is reduced to a greater extent, the proportion and influence of the equity ratio is also decreasing to a greater extent, being compensated by significant beta growth.

Moving from all the above considerations, the reasoning that has been presented in Fig. 4 for the financial economics approach needs evolution into Fig. 5: the required debt risk premium is complement of the required equity risk premium according to the above formula about levered beta. However, differently from the business economics approach, the required debt risk premium in this perspective is not an independent or at least indifferent risk element, being not separated from income before tax and more in general from the global functioning of the enterprise, including also equity structure choices (Bouaziz and Bouri, 2012; D'Amato, 2019).

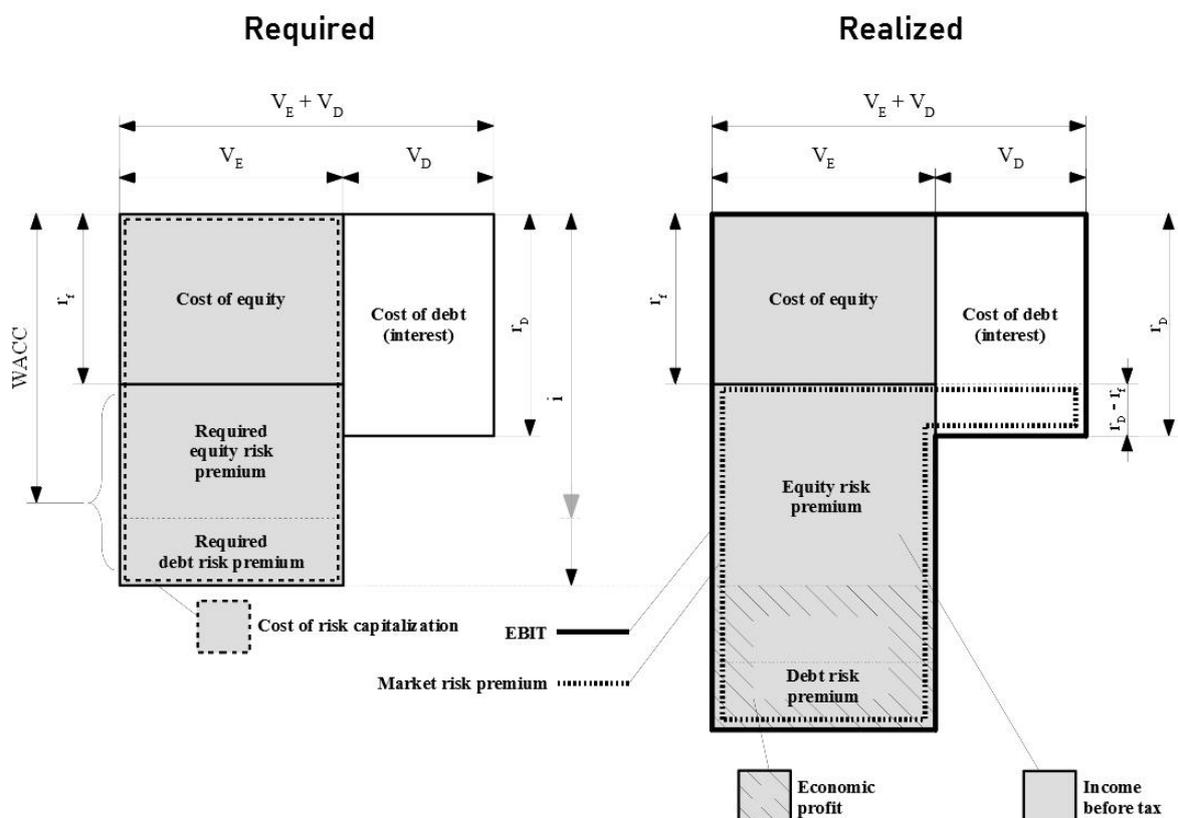


Figure 5. Potential contradictions in the financial economics approach. Authors' analysis.

In a positive situation like the one under hypothesis in Fig. 5, when comparing generated/realized values that are major than the required ones, the required debt risk premium must be subtracted from the realized profit before deducting the cost of equity, and if the remained quantity should be positive, it will compensate the risk premium for the equity. In the financial economics approach higher debt raises profits through various business actions, and even though they may be risky, theoretically the corporate activity could be realized even using only debt, with all the connected dangers (Uzunidis and Laperche, 2011): in this case, however, it seems strange that the surplus generated by the debt increase could be attributed only to the debt expectations and handled as the realized performance of the equity, considering that the outcome of the global business activity, but even that one associated only to a single corporate project, naturally depends not only on the debt-to-equity ratio, and viceversa (Munisi, 2017).

In truth, in addition to the CAPM, several studies have proposed different approaches/formulas, and thus the question about quantification of the beta factor and more specifically about the financial leverage effect have considerable literature: however, the common feature of these scientific studies is that they have worked on the basis of (common) stock markets data, using econometric methods and typically trying to uncover scientifically proven relationships from the side of stock market investors (that is why, for example, they constantly use short-term government treasury rates instead of long-term indicators). Naturally, the stock market conditions are the closest to the definition of an efficient market, but at the same time the wide range of non-listed companies remains out of this potential computation, claiming support for other beta calculations (Britzelmaier et al., 2013).

## **5. RESEARCH LIMITATIONS AND FUTURE DIRECTIONS.**

The main limit of the study is its theoretical nature. Thus, following research will have to be focused first on data analysis for experimenting possible applications of the two approaches, and mostly about the use of the 'economic profit ratio' as potential measure for the opportunity cost from a differential knowledge management perspective.

Quite likely, significant problems could arise in verifying the possible factors determining good or bad knowledge management strategies and methods, but anyway stronger effort in this direction is necessary. In a subsequent study, nevertheless, it may be worth examining the degree of difference between betas and risks determined on the basis of stock markets data and the cost of capital rates calculated using the same data on the basis of a business economics approach.

## **6. SCIENTIFIC AND MANAGERIAL IMPLICATIONS.**

From a theoretical point of view, the research highlights the contribution of knowledge management in evaluating the opportunity cost particularly and the cost of capital more in general, adopting a business economics approach. A specific result in this respect concerns the use of the 'economic profit ratio' as a potential measure of the differential business knowledge enhancing.

From a practical point of view, it is to highlight that the advisory function of the business economics (Illés, 2016) is very powerful for the management of the opportunity cost and more in general for the enterprise financial management, even because this utility can be extended to SMEs, which typically are non-listed companies (with obvious exceptions), thus supporting in overcoming the problem about the beta calculation from a knowledge management point of view (Durst and Runar Edvardsson, 2012; Dezi and Del Giudice, 2014). In these companies, organizational functions are normally less developed, and the operational orientation of each activity of the value chain is usually very strong, thus requiring very specific expertise about the business knowledge to activate (Al-Omari et al., 2014).

Nonetheless, even though recognizing its potential approximations and contradictions, the research seems to suggest that some knowledge management impact could emerge also when adopting the financial economics approach. In this case, however, the knowledge effect seems coming more likely from the outside of the enterprise, concerning financial engineering and/or tax legislation.

## **7. CONCLUSION.**

The financial economics approach may drive businesses towards borrowing debt, and so towards high indebtedness, in order to realize more performing results about net profit, but at the same time business decision makers must be aware that these performance have to be quite appropriate not only from a formal but also and above all from a substantial point of view, considering for every single situation how to reach the economic break-even point when the corporate finance structure would change with debt-to-ratio increase and consequent financial leverage (Zeitun and Saleh, 2015).

Although the financial economics approach quantifies the factors influencing the cost of capital with a strong methodological background, it can be applied entirely only to a limited group of companies. because of the investor (short-term) view of the portfolio and its restrictive application conditions. The business economics approach, on the other hand, proposes a general risk definition that can be used by all companies and perhaps also better supported by knowledge management, with its specific contribution that would be methodologically expressed by the economic profit ratio.

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## MARKETING TO THE GENERATIONS: HOW DIVERSE GENERATIONS RESPOND TO SPORT SPONSORSHIP

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### ABSTRACT

The purpose of this paper is, firstly, to single out the significance level of factors associated with positive supporter attitude and intentions related to sports sponsorship, and, secondly, to compare and contrast these sponsorship outcomes across different generational groups. A self-report structured questionnaire was used to collect data from basketball fans who watched FIBA World Cup 2019 and a sum of 2,752 questionnaires were effectively assembled and analyzed by means of SPSS and AMOS. The findings supported that supporters' degree of attachment with their favorite club as well as the degree of their involvement with sport, along with the perceived sincerity of sponsors, all have a significant effect on fans' awareness of sponsors. Furthermore, the findings of the research highlighted the impact of supporters' awareness of sponsoring firms on their attitude towards sponsors and its subsequent effect of their purchase intentions regarding sponsors' merchandise. Lastly, the results indicated significant differences in regard to supporters' generational group, in connection to sponsorship. This is a novel research, since it indicates the persuasive role of age groups on sponsorship's efficiency.

*Keywords: sponsorship, awareness, purchase intentions, generations.*

### INTRODUCTION

Sponsorship has been consistently developing as a mainstream marketing vehicle during the last 30 years. To be more precise, the amount spent was \$5.6 billion out of 1987 and skyrocketed to \$68.7 billion in 2018, developing more than ten times during the previous thirty years (Statista, 2018). Companies invest in sport sponsorship anticipating that the beneficial attitude that supporters have toward their preferred team will be moved to their brand through sponsor-sponsee relationship and thus advancing sales (Deitz et al., 2012). Nevertheless, being aware of the case that fans are committed isn't sufficient. Marketers must know about the factors which can influence fans' support of sponsoring

firms. In addition, it is significant that marketers comprehend who these fans are, to use sponsorships that will be efficient in enacting these clients. The scope of this study is to supply a unified theoretical framework so as to explicate the aspects affecting fans' awareness of sponsoring firms and its subsequent impact on fans' attitude towards sponsors and its impact on fans' purchase intentions regarding sponsoring firms' goods and services. Furthermore, this research tries to pin-point the degree to which the generational cohorts affect the aforementioned aspects, concerning sponsorship efficiency.

## **THEORETICAL BACKGROUND**

Sponsorship evaluation is an aspect of conflict in the literature, with the recommendation that current techniques neglect to address or comprehend the full impacts of sponsorship activities. The psychological features of buyer behavior are often chosen to be very critical when considering buyer reactions to sponsoring firms. Three central psychological procedures affecting buyer behavior have been suggested, for example the data processing, learning just as change in attitude/behavior (Lobo, Meyer & Chester, 2014).

Sport involvement has pulled in sponsorship researchers' attraction as a precursor of fans' reactions to sponsorship with a two-dimensional methodology. The two dimensions used for the understanding of association, were attraction and centrality. "Attraction" alludes to the significance and importance the activity conveys for a person whilst "centrality" alludes to the degree to which a person organizes different parts of his/her life around an activity (Nassis et al, 2014). Nonetheless, in the field of sport marketing studies, researchers have only sometimes utilized sport involvement as an indicator variable.

Sport supporters are non-typical customers taken into account their unique degrees of dedication and attachment with their preferred team. Previous research supported that fans with high level of team attachment demonstrate a beneficial attitude and therefore a broader consumer acknowledgement toward the sponsors than the spectators with less attachment (Yoshida, Heere & Gordon, 2015). The significant factor in recognizing sponsorship from advertising is that a consumer gets a sponsor's message through the property in a "passion" mode, as opposed to an advertiser's message which is received through the media in an 'interference' mode (Cheong, Pyun & Leng, 2019). Under this reasonable distinction, an overall supposition that will be that the consumers structure favorable or unfavorable beliefs in regards to the benefits of sport sponsorship. Hence, beliefs about sponsorship could influence sponsorship's efficiency.

One additional line of sponsorship studies is sponsor intention that has concentrated on whether consumers observe sponsor motivations as either being true, for society; or self-serving, revenue driven (Rifon et al., 2004). The current proof proposes that corporate sponsorships are probably going to be

seen with some doubt. A few analysts have brought this non-judgment presumption into question, referring to proof for consumer doubt of organization support for not-profit driven causes, yet without experimental backup for a fundamental procedure.

Multi-generational marketing is the act of attracting to the remarkable demands and behaviors of people within more than one explicit generational group, with a generation being a group of people born and existing about a similar time. As per past examinations, four fundamental generations exist dependent on birth date: Baby Boomers (1946-64), Generation X (1965-76), Millennials or Generation Y (1977-1995) and Generation Z (1996 and from that point) (Williams & Page, 2011).

The present study recommends a contemporary framework for the investigation of sponsorship, which is established upon a combination of the literature, while generational cohorts will be studied - for the first time within the sponsorship framework - as conceivable distinctive determinants. In view of the literature, the resulting model and hypotheses are placed:

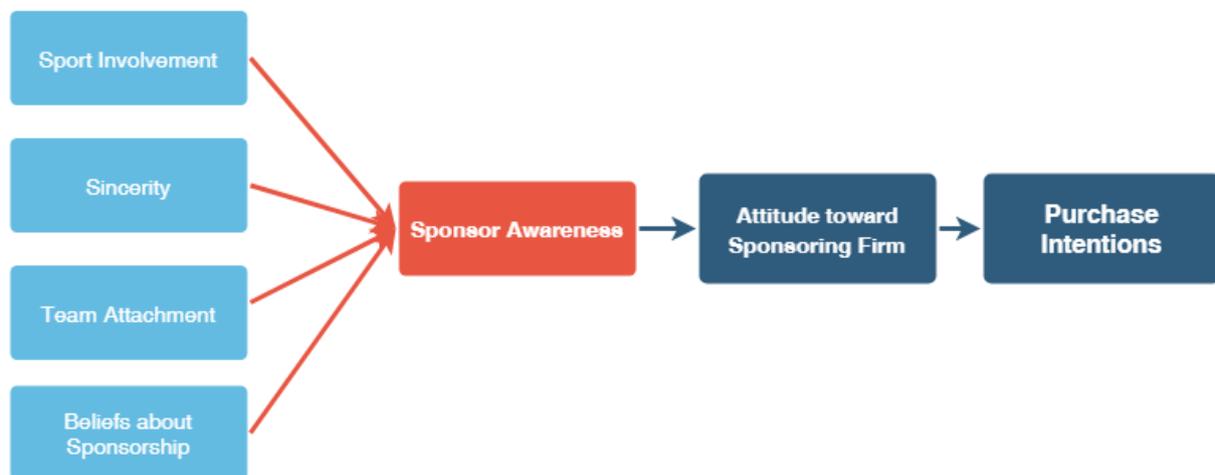


Figure 1. *Sponsorship model*

H1: Sport involvement (centrality and attraction) are expected to influence Sponsor Awareness

H2: Team attachment is expected to influence Sponsor Awareness

H3: Sincerity are expected to influence Sponsor Awareness

H4: Beliefs about sponsorship is expected to influence Sponsor Awareness

H5: Sponsor Awareness is expected to influence Attitude toward Sponsors

H6: Attitude toward Sponsors is expected to influence Purchase Intentions

## METHODOLOGY, RESEARCH DESIGN AND DATA ANALYSIS

The study questions were structured dependent on the strategies utilized by past sponsorship specialists (e.g., Koronios et al., 2016; Biscaia et al., 2013; Alexandris & Tsiotsou, 2012). A quantitative method was used and questionnaires were collected from Greek game spectators of the FIBA

Basketball World Cup 2019, who were enrolled to fill in an online survey with the help of a broadly known sports site. A total of 2,752 questionnaires were successfully completed and analyzed by means of the SPSS & AMOS.

## RESULTS, DISCUSSION AND IMPLICATIONS/CONCLUSIONS

Exploratory Factorial Analysis (EFA) using Varimax method (varimax rotation) was compiled to investigate the factorial structure of the questionnaire. More in detail, EFA indicated an index KMO>0.9 for all scales. The variance of the data explained by factors varied of 75,49% for the 7 scales. CFA showed that all the scales had: Normed  $\chi^2 < 1$ , RMSEA<0.1 and CFI>0.9. The results of the structural equation model (SEM) supported almost all the respective proposed hypotheses (H1-H6). Additionally, model includes the statistically significant effect of centrality dimension of sport involvement scale on sport awareness (b=0.689, p<.001), as well as sincerity (b=0.255, p<.001) and team attachment (b=0.830, p<.001) significant effect on sport awareness. On the other hand, beliefs about sponsorship (b=0.342, p>.001) are insignificant with sport awareness. Also, model includes statistically significant effect of sport awareness on attitude toward sponsors (b=0.934, p<.001) and attitude toward sponsors to purchase intention (b=1.163, p<.001). Finally, the model has values of ( $\chi^2=0.82$ , CFI=0.930, NFI=0.930, RMSEA<0.1). Following results present the linear direct effect of determinants from the above representing model. Sponsor awareness effect significantly purchase intention of fans and attitude toward sponsoring firms.

Finally, SEM analysis regarding age group (Generation Z /19-22, Millennials/23-41, Generation X /42-53, Baby Boomers/over 54) indicate that in "Generation Z" the significant effects are those between attraction dimension of sport involvement on sport awareness (b=0.136, p<.001), sincerity on sport awareness (b=0.146, p<.001) team attachment on sport awareness (b=0.172, p<.05), beliefs about sponsorship on sport awareness (b=0.174, p<.05), sport awareness on attitude toward of firms (b=0.279, p<.001) and attitude toward of firms on purchase intention (b=0.339, p<.001). On the contrary, in "Millennials", the significant effects are those between attraction dimension of sport involvement on sport awareness (b=0.218, p<.05), sincerity on sport awareness (b=0.196, p<.001), beliefs about sponsorship on sport awareness (b=0.174, p<.05), sport awareness purchase intention (b=0.110, p<.001), and attitude toward of firms on purchase intention (b=0.388, p<.05). Different results emerged in "Generation X". In more detail, in this age group the significant effects are those between centrality dimension of sport involvement on sponsor awareness (b=0.081, p<.001), team attachment on sponsor awareness (b=0.142, p<.001), sponsor awareness on attitude toward of firms (b=0.349, p<.001) and attitude toward of firms on purchase intention (b=0.048, p<.05). Finally in the "Baby Boomers" the significant effects are those between attraction dimension of sport involvement on sponsor awareness

( $b=0.193$ ,  $p<.05$ ), team attachment on sponsor awareness ( $b=0.215$ ,  $p<.001$ ), beliefs about sponsorship on sport awareness ( $b=0.379$ ,  $p<.001$ ), sponsor awareness on attitude toward of firms ( $b=0.268$ ,  $p<.001$ ) and attitude toward of firms on purchase intention ( $b=0.189$ ,  $p<.001$ ).

This research's primary contribution is the improvement of a structure which is authenticated hypothetically just as through studies and which can be utilized by sports clubs as well as by real or potential sponsors, so as to fathom the manner by which the effectiveness of the sponsorship can be upgraded. From a practical aspect, the research gives valuable ramifications to sponsors and all the more explicitly marketing managers who are drawing in or wanting to take part in sponsorship bargains so as to create beneficial sponsorship techniques. One of the most important discoveries of the present research, is related with how much of the sincerity is utilized. As referenced before, no past research on sponsorship has been led in regard to the utilization of sincerity. Another excellent finding of the study was the work of generational cohorts as a potential mediator to the connections that were investigated

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# THE INFLUENCE OF BRAND INNOVATION, MARKET ORIENTATION AND INTERNATIONALIZATION ON MARKET PERFORMANCE IN GREEK FOOD AND BEVERAGE COMPANIES

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## ABSTRACT

Firms' Market Performance is the ultimate goal of all business endeavors. However, there is relatively limited research in the international marketing literature that examines the impact of Brand Innovation activities and market response characteristics, such as the impact of Internationalization and Market Orientation on Market Performance. The main purpose of this paper is to investigate: i) the impact of Brand Innovation on Market Performance, ii) the relationship between Market Orientation and Market Performance, and iii) the relationship between Internationalization and Market Performance. The research model formulated and used integrates four key variables and it is empirically tested in Greek exporting companies in the food and beverage industry. These variables are Market Orientation, Internationalization, Brand Innovation and Market Performance. The findings show that: a) Brand Innovation directly and positively affects Market Performance; b) there is a positive link between Market Orientation and Market Performance, and c) there is a positive link between Internationalization and Market Performance. Furthermore, it is shown that the lack of Brand Innovation affects negatively Market Performance even when Internationalization and Market Orientation are present.

*Keywords: brand innovation, market performance, internationalization, market orientation, exporting*

## INTRODUCTION

Nowadays, Brand Innovation (BI) is one of the most important issues in the area of brand management. Managers are aware of the fact that the only way to maintain the vitality of a brand is continuity of innovation. However, brand innovation receives little attention in the branding literature. Most research studies in the international business literature focus on product innovation. Brand innovation is a field that has not been adequately explored, resulting in a significant gap in the literature, since a clear framework on brand innovation has not been developed (Grant, 2006; Chien and Yuan, 2013). Furthermore, despite a large body of literature on the relationship between firm

innovation in general and Market Performance (MP), there is no reliable conclusion for this relationship (Koc and Ceylan, 2007, Nguyen, 2016). Some scholars found a positive (e.g. Zahra *et al.*, 2000; Camisón and Lopez, 2010), negative (e.g., Oxley and Sampson, 2004), and no direct relationship (e.g. Zhang *et al.*, 2007) between innovation and performance. However, only one study examines the relation between brand innovation and market performance (Nguyen, 2016).

On the other hand, the concept of internationalization is broadly used and examined in international business research (Sullivan, 1994; Hassel *et al.*, 2001; Letto-Gillies, 2002). More specifically, understanding the market performance outcomes of firms' internationalization has been known as a major issue in the strategic management (Marano *et al.*, 2016) and international business literature (Riahi-Belkaoui, 1996). It is one of the questions of common concern (Karabag and Berggren, 2014) and although many researchers have been trying to find a consistent answer for it (Bowen and Rugman, 2007), the degree to which internationalization is contributing to a firm's market performance is still questionable (Garbe and Richter, 2009), since the findings are inconsistent, heterogeneous and contradictory (Ruigrok *et al.*, 2007; Powell, 2014; Marano *et al.*, 2016). Moreover, while several studies have been done on the impact of internationalization on innovation in general, there has been relatively limited research that investigates the relationship between internationalization and brand innovation.

Furthermore, in recent decades Market Orientation (MO) has been a reference point for value offering to the customer. Most of the companies, irrespective of whether they operate in developed or developing countries, consider market orientation as a crucial point in their decision making process. However, although the literature on the concept of market orientation is extensive, there have been only a few empirical studies that examine the relationship between market orientation and innovation in general. In addition, very few studies examine the relationship between market orientation and brand innovation.

As it is stated earlier, there is not enough research in the international marketing literature to examine the impact of internationalization, market orientation and brand innovation on market performance, which is the ultimate goal of all business endeavors. Therefore, the present study aims to fill this important gap in the literature that links market orientation, internationalization, brand innovation and market performance. The model integrates three key independent variables in Greek exporting companies in the food and beverage industry: internationalization, market orientation and brand innovation. Findings provide a foundation for understanding how firms can improve market performance (dependent variable) after ten years of economic crisis, using these three variables.

In this context, the specific goals of this paper are:

- 1) To investigate whether the implementation of Brand Innovation exerts a significant, specific and direct effect on the Market Performance of Greek export companies in the food and beverage industry.
- 2) To investigate the influence of Market Orientation on Market Performance in the Greek food and beverage exporting companies.
- 3) To investigate the influence of Internationalization on Market Performance in the Greek food and beverage exporting companies
- 4) To verify and understand whether Market Orientation, mediated by Brand Innovation, exerts a significant, specific and indirect mediating effect on the Market Performance of Greek export companies in the food and beverage industry.
- 5) To verify and understand whether Internationalization, mediated by Brand Innovation, exerts a significant, specific and indirect mediating effect on the Market Performance of Greek export companies in the food and beverage industry.

Given these goals, the hypotheses examined are the following (Figure 1):

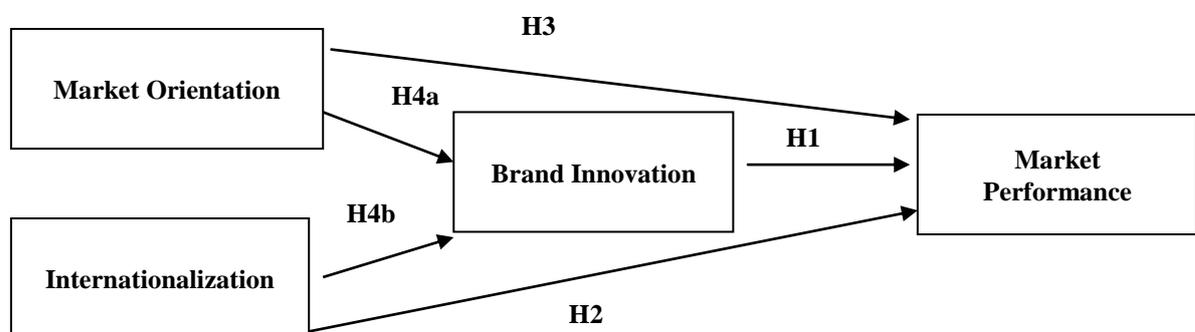
**H1:** Brand innovation positively affects Market Performance in Greek food and beverage exporting companies.

**H2:** Internationalization is positively related to Market Performance in Greek food and beverage exporting companies.

**H3:** Market orientation is positively related to Market Performance in Greek food and beverage exporting companies.

**H4a:** Brand innovation mediates the relationship between Market Orientation and Market Performance of Greek export companies in the food and beverage industry.

**H4b:** Brand Innovation mediates the relationship between Internationalization and Market Performance of Greek export companies in the food and beverage industry.



**Figure 1: Research Conceptual Framework**

The food and beverage manufacturing sector is important for Greek manufacturing because it contributes significantly to the Greek economy, while being one of its most competitive sectors. In

large economies the food and beverage industry accounts for 10% to 20% of manufacturing, while in Greece it reaches 30%. The food sector is the largest manufacturing sector in Greece, while together with beverages they represent 29% of the manufacturing sector's total production value (Eurostat, 2016).

## LITERATURE REVIEW

### *Brand Innovation*

There are several definitions of brand innovation in the relevant literature. Grant (2006) defined brand as a cluster of strategic cultural ideas. In this context, he considered that a brand is just like a story, being a key that drives cultural logic, establishes the continuity and association in order to have every new concept added to a brand's benefit and make the brand alive in the hearts of people. In this context, brand innovation lends innovative concept activities into an existing brand and it consists of eight items: (1) Concept of New Tradition; (2) Faith; (3) Human Herd Instinct; (4) Connection, (5) Neo-Luxury, (6) Time, (7) Excitement, and (8) Control. From the aspect of cultural evolution, every new concept can be added to a brand's benefits and make the brand alive in the hearts of people.

Furthermore, Chimhundu *et al.* (2010, p. 10) concluded that the term brand innovation "*captures all innovative activities ranging from incremental to radical; thus the entire continuum from minor product or packaging changes to the introduction of totally new products/brands is taken into account, as well as the marketing activities associated with the innovation*". Restricting brand innovation, though, to the concept of cultural innovation does not take into account the many other methods by which the brand can inspire, innovate and lead the business. The concept of brand leverage, developed by Aaker (1996), offers a particularly important framework for achieving this goal. According to this framework, brand innovation types are: (1) Brand Stretching, (2) Brand Extensions and (3) Co-branding.

Keeley *et al.* (2013) agree with Aaker's (1996) approach and enrich it by concluding that brand innovation can be distinguished in the following types: (1) Brand Extension, (2) Co-branding, (3) Component Branding, (4) Private Label, (5) Brand Transparency, (6) Brand Leverage and (7) Brand Value Alignment. According to Nguyen *et al.* (2016), brand innovation is defined as advancements in brands that result in fundamental changes to existing practices and markets. Overall, Aaker's (1996) perspective, combined with evidence from Grant's (2006) theory, is adopted in this study for the brand innovation definition and classification.

### ***Internationalization***

The concept of internationalization is broadly used and examined in international business research (Sullivan, 1994; Petri, 1994; Hassel *et al.*, 2001; Letto-Gillies, 2002). Internationalization refers to the progressive and gradually increasing pattern of business expansion into the foreign markets (Fan, 2008). It can be defined as the action or effect of making something spread out to several nations (Ferreira *et al.*, 1999). According to Prashantam (2005), internationalization is the process of adapting firms' operations to international environments (Calof and Beamish, 1995: 116). After taking under consideration the various definitions formulated in the literature, Melo *et al.* (2017) define internationalization as the involvement of the company in cross border activities. In addition, the process of internationalization has been approached in the literature by different schools of thought, such as the Foreign Direct Investment (FDI) theory, stage models, and more recently the network perspective.

The Degree of Internationalization (DOI) could also be viewed from various perspectives. Many researchers have shown interest in the ways it can be measured (Vahlne and Nordstrom, 1993; Thai and Chong, 2008; Tuselman *et al.*, 2008; Asakawa and Rose, 2013). Hassel *et al.* (2000; 2003) consider internationalization as a two-dimensional construct: the real dimension (production) and the financial dimension (corporate governance). Sullivan (1994) developed a measurement of a firm's degree of internationalization on the basis of three dimensions: (1) Performance (conditionings occurring abroad); (2) Structure (resources abroad) and (3) Attitudes (top management's international orientation). In this study, and based on the multidimensional approach developed by Sullivan (1994) and Nguyen *et al.* (2016), internationalization is measured with the three items described before.

### ***Market Orientation***

In recent decades, market orientation has been a reference point for value offering to the customer. The literature on the concept of market orientation is extensive. Market orientation has been empirically determined by focusing on customers, competitors and organizational issues (Kohli and Jaworski, 1990; Narver and Slater, 1990). Market orientation as a business philosophy is largely based on the premise that the marketing concept and market orientation are identical (Bruning and Lockshin, 1994). Consequently, market-oriented companies are considered those for whom the concept of marketing is the driving business philosophy.

Kohli and Jaworski (1990) define market orientation as the process of generating and disseminating market intelligence for the purpose of creating superior buyer value. The information gathered about the market should be evaluated in the context of (1) external market factors (e.g. competition, environment) that influence the needs and preferences of customers, and (2) current and future

customer needs. After creating market knowledge, it is necessary to disseminate this information internally to the organization (Kohli and Jaworski, 1990).

Narver and Slater (1990), based on Kohli and Jaworski's (1990) conceptual framework, consider that market orientation contains three major behavioral components: (i) "customer orientation" - the continuous understanding of the needs of both the current and potential target customers and the use of that knowledge for creating customer value, (ii) "competitor orientation" - the continuous understanding of the capabilities and strategies of the principal current and potential alternative satisfiers of the target customers and the use of such knowledge in creating superior customer value, and (iii) "interfunctional coordination" - the coordination of all functions in the business in utilizing customer and other market information to create superior value for customers (Narver and Slater, 1990). Finally, Deshpande and Farley (1997, pg. 213) define market orientation as "*The set of cross functional processes and activities directed at creating and satisfying customers through continuous needs-assessment*". This study adopts Narver and Slater's (1990) multi-dimensional perspective which suggests three main dimensions of effective market orientation, namely, customer orientation, competitor orientation and inter-functional coordination, because it allows to capture a more combined perspective of market orientation.

### ***Market Performance***

Performance is often used as a dependent variable in marketing literature. In general, performance points out how successful a company/brand is in the market and aims to evaluate its strategic successes. Most researchers divide performance into two components: 1) customer performance and 2) financial performance (Homburg and Pflesser, 2000; Matear *et al.*, 2002; Lee *et al.*, 2008). *Customer performance* can be defined as the performance that can be enhanced by the continuous relationship between a customer and a brand (Lee *et al.*, 2008). More specifically, customer performance includes measurement items such as customer acquisition, customer maintenance, customer satisfaction, brand awareness, brand image, brand relationship related performance and so on.

*Financial performance*, on the other hand, can be defined as the evaluation of financial ratios related to a brand by a marketing manager or a brand manager (Lee *et al.*, 2008). Measurement items of financial performance can be sales growth, margin, market share and return on investment. In this paper, a five-item scale of *international performance*, which was adapted by Nguyen *et al.* (2016), is used because it covers both customer and financial performance (Homburg and Pflesser, 2000; Lee *et al.*, 2008; Lu *et al.*, 2010; O' Cass and Ngo, 2007).

## METHODOLOGY

### *Questionnaire design*

The questionnaire in this study was compiled on the basis of multi-dimensional measurement. On a 5-point Likert Scale, the answers were measured with 5 denoting *Strongly Agree* and 1 denoting *Strongly Disagree* and the score grows in proportion to the degree of agreement. The 10 item questionnaire on the measurement of Brand Innovation was patterned on the basis of the brand innovation dimensions proposed by Aaker (1996), Grant (2006) and Nguyen (2016) (Table 1). Furthermore, the three –item questionnaire on internationalization was based on Nguyen *et al.* (2016) multidimensional approach and includes the sub-factors, international experience, degree of internationalization and exporting, to address limitations typical to internationalization measures (Ramaswamy *et al.*, 1996).

Market orientation was measured based on Cadogan *et al.* (2001), conceptualized by Narver and Slater (1990). A four-item scale was used, as it was adapted by Nguyen *et al.* (2016), rooted in the mainstream market orientation studies with the sub-dimensions competitor, interfunctional and customer orientations, which were previously showed to be reliable and valid in the Chinese context (Murray *et al.*, 2007).

Market Performance measurement focuses on two aspects: financial performance and customer performance (Homburg and Pflesser, 2000; Lee *et al.*, 2008). A five-item scale of international performance, which was adapted by Nguyen *et al.* (2016) was used, because it covers both customer and financial performance (Homburg and Pflesser, 2000; Lee *et al.*, 2008; Lu *et al.*, 2010; O' Cass and Ngo, 2007). More specifically, market growth, market share, return on investment and profitability were utilized as financial performance indicators. Concerning customer performance measurement, customer satisfaction, which has been widely used in the literature (e.g. Lee *et al.*, 2008), was adapted.

|  |        |
|--|--------|
| per-12.a. Our organization has attained a desired growth in overseas markets.                                      | Per-1  |
| per-12.b. Our organization has secured desired market shares in overseas markets.                                  | Per-2  |
| per-12.c. Our organization has increased its profitability from overseas expansion.                                | Per-3  |
| per-12.e. Our organization has increased its return on investment through sales.                                   | Per-4  |
| per-12.f. Our organization has achieved customers' satisfaction.   | Per-5  |
| inn-15.j. Co-branding  | inn-10 |
| inn-15.i. Brand stretching   | inn-9  |
| inn-15.h. Brand Transparency   | inn-8  |
| inn-15.c. Brand extension  | inn-3  |
| inn-15.d. Our brand innovation has opened up new markets   | inn-4  |
| inn-15.b. Introduction of a new generation of brands.  | inn-2  |
| inn-15.e. Our brand innovation has improved existing product quality   | inn-5  |
| inn-15.a. Introduction of a new cluster of strategic cultural ideas  | inn-1  |
| inn-15.f. Our brand innovation has reduced production costs.   | inn-6  |
| inn-15.g. Brand Internationalization   | inn-7  |
| int-12.c. The ratio of exports to total sales has increased in our company in the last 5 years.                    | int-4  |
| int-12.d. Our company's engaging in international activities, such as exporting has increased in the last 3 years  | int-5  |
| int-12.e. Our company's engaging in international activities, such as exporting has increased in the last 5 years. | int-6  |

|   |       |
|---|-------|
| int-12.a. The number of markets to which our company exports has increased                                  | int-2 |
| int-12.b. The ratio of exports to total sales has increased in our company in the last 3 years.             | int-3 |
| int-9. Current ratio of exports to total sales.   | int-1 |
| ori-12.c. We seek to anticipate future customer needs.  | ori-3 |
| ori-12.b. Our strategies are driven by the need to create customer value                                    | ori-2 |
| ori-12.d. Market information is shared with all functions.  | ori-5 |
| ori-12.a. Our company frequently collect information on our competitors to help direct our marketing plans. | ori-1 |

**Table 1. Measurement Items**

The reliability of our questionnaire was evaluated using the following criteria: a) Internal consistency reliability criterion that was examined using the Cronbach's coefficient which is  $>0.7$  in every subscale and b) Test-retest reliability criterion, using the Pearson correlation which is  $>0.7$ .

### *Data Collection and Analysis*

Primary data were collected from questionnaires sent to Greek exporting companies operating in the food and beverage industry. Regarding the sampling method, random selection was followed. The size of the sample is 317 companies. The questionnaires were sent to 980 firms obtained from the listings of the Federation of Industries of Greece (SBBE), the Greek Exporters Association (SEVE) and the Thessaloniki Chamber of Commerce and Industry. 345 questionnaires were returned, however 28 of them were not usable as many questions had not been answered. As a result, the effective rate of response was 35.2%. As shown in Table 2, the majority of the firms were small and medium size enterprises. It is worth noting that the proportion of large companies (7.8%) responding to the survey was significant.

|                 | Million Euros | N   | %      | Company Size |
|-----------------|---------------|-----|--------|--------------|
| Annual Turnover | <=2           | 148 | 46.7%  | Very Small   |
|                 | >2-10         | 55  | 17.4%  | Small        |
|                 | >10-20        | 48  | 15.1%  | Medium       |
|                 | >20-30        | 28  | 8.8%   | Medium       |
|                 | >30-40        | 11  | 3.5%   | Medium       |
|                 | >40-50        | 3   | 0.9%   | Medium       |
|                 | >50           | 24  | 7.6%   | Large        |
|                 | Total         | 317 | 100.0% |              |

**Table 2: Sample Profile (N = 317)**

Concerning the internationalization type, the large majority of the firms (87.6%) had permanent export activity with direct exports. Only 22.4% of the companies surveyed had occasional export activity, as shown in Table 3.

| Type of Internationalization                      | %    |
|---|------|
| Only occasional export activity                   | 22.4 |
| Permanent export activity through representatives | 12.6 |
| Permanent export activity with direct exports     | 87.6 |
| Exports through a branch in a foreign country     | 1.4  |
| Creation of a commercial subsidiary               | 1.4  |
| Production in a foreign County                    | 6.1  |

**Table 3. Internationalization Type**

The relationships between study parameters were investigated using the Pearson product moment correlation coefficient ( $r$ ). The data were analyzed with the SPSS 20 statistical package (Statistical Package for Social Sciences) and significance was set at  $p < 0.05$ .

## FINDINGS

Table 4 presents the Pearson's correlation coefficients between the four variables. In every case, positive correlation, varying from medium to high effect, was found between each pair of the four variable scores. More specifically, the results indicated a weak but statistically significant positive relationship between Brand Innovation and Market Performance ( $r^2 = 0.106$ ), thereby providing support for H1. Furthermore, the results indicated a significant positive relationship between Internationalization and Market Performance ( $r^2 = 0.263$ ), thereby providing support for H2. Regarding the third hypothesis (H3), findings confirm that there is positive correlation between Market Orientation and Market Performance ( $r^2 = 0.222$ ).

Moreover, path analysis to test hypotheses H4a and H4b (Figure 2) was used. The results showed that there is a positive relation between Market Orientation and Brand Innovation as well as between Internationalization and Brand Innovation. The relationship between Brand Innovation and Market Performance was also found statistically significant ( $r^2 = 0.32$ ). Therefore, hypotheses H4a and H4b were also supported. Furthermore, path analysis showed that the significant direct effect on Market Performance comes from Brand Innovation. More specifically, if the value of innovation was increased by one standardized unit, while internationalization and Market Orientation remain fixed, then the value of Market Performance would increase by 0.32 standardized units.

|                      |                     | Market Orientation | Internationalization | Brand Innovation | Market Performance |
|----------------------|---------------------|--------------------|----------------------|------------------|--------------------|
| Market Orientation   | Pearson Correlation | 1                  |                      |                  | 0.222**            |
|                      | Sig. (2-tailed)     |                    |                      |                  | 0.000              |
|                      | N                   | 317                |                      |                  | 317                |
| Internationalization | Pearson Correlation |                    | 1                    |                  | 0.263**            |
|                      | Sig. (2-tailed)     |                    |                      |                  | 0.000              |
|                      | N                   |                    | 317                  |                  | 317                |
| Brand Innovation     | Pearson Correlation |                    |                      | 1                | 0.106              |
|                      | Sig. (2-tailed)     |                    |                      |                  | 0.059              |
|                      | N                   |                    |                      | 317              | 317                |
| Market Performance   | Pearson Correlation | 0.222**            | 0.263**              | 0.106            | 1                  |
|                      | Sig. (2-tailed)     | 0.000              | 0.000                | 0.059            |                    |
|                      | N                   | 317                | 317                  | 317              | 317                |

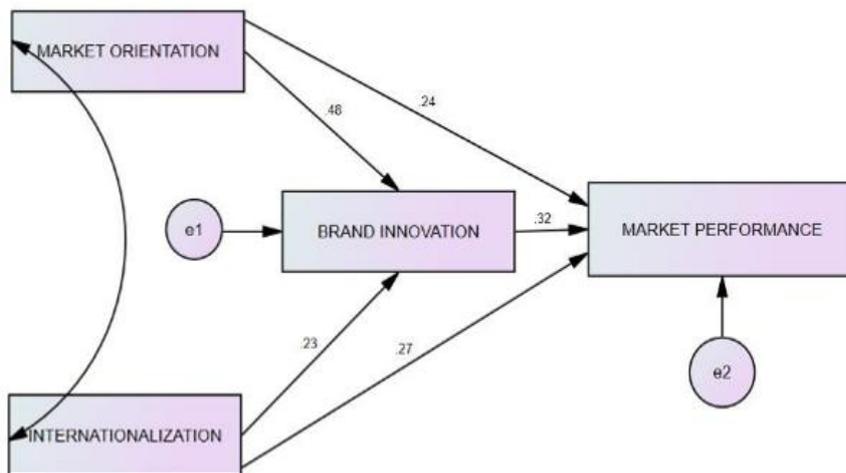


Table 4. Hypothesis Testing

Figure 2. Path Analysis

### CONCLUSIONS

The present study examines the relationship between Internationalization and Market Performance, the relationship between Market Orientation and Market Performance, as well as the relationship between Brand Innovation and Market Performance. The field of the study is the Greek exporting companies active in the food and beverage industry. Concerning the relationship between Brand Innovation and Market Performance, the analysis shows that Brand Innovation directly and positively affects Market Performance in Greek food and beverage exporting companies. This result agrees with Nguyen (2016). Furthermore, concerning the relationship between Market Orientation and Market Performance, the analysis confirms that there is a positive link between them. Moreover, concerning the link between Internationalization and Brand Innovation, data analysis confirms that the firm's

degree of Internationalization directly and positively affects Market Performance in the Greek food and beverage exporting industry.

Furthermore, the mediating role of Brand Innovation between Market Orientation and Market Performance as well as between Internationalization and Market Performance was also verified. This result partially contradicts the findings of Nguyen *et al.* (2016) who confirmed the mediating role of brand innovation between internationalization and market performance in Chinese high-tech service industry, but not between Market Orientation and Market Performance. That could be because high-tech service industry and food and beverage industry have different characteristics, as well as that the management of Chinese firms has different attributes compared to Greek managers.

Finally, our path analysis led to the formulation of an important relational model, which can predict the impact on the company's Market Performance (in the food and beverage industry) from a change in brand innovation by one standardized unit, keeping all other variables (internationalization, market orientation) constant.

## LIMITATIONS AND FURTHER RESEARCH

We acknowledge that there are some limitations in this study. First, our sample of Greek food and beverage exporting companies may limit broader generalizations to other industries and countries. More industry and country studies are needed to investigate these relationships. In addition, future studies should examine whether the quality of innovation (incremental or radical) has any influence on market performance. Given the fact that incremental and radical innovations require different resources and core competencies, it may be appropriate to investigate each of the two innovation types individually. Finally, the impact of brand innovation as a mediator on other interesting and critical variables, such as brand equity, should also be investigated in the future. On the other hand, the mediating role of other variables, such as strategic types and corporate competence, should be considered in addition to brand innovation.

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## THE IMPACT OF NARCISSISM IN START-UPS ENTREPRENEURS' CHOICES: DIFFERENCES AMONG WOMEN AND MEN

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### ABSTRACT

The paper explores the role of narcissism on entrepreneurs' decisions in terms of organizational choices, discussing gender differences. Start-ups creation and management is a complex process and it is strictly influenced by entrepreneurs' personality, capabilities, and cognitive orientation. Analyzing an Italian sample of 207 entrepreneurs and using ANOVA and generalized linear models methods, we test our hypotheses in order to understand whether and how narcissism affects R&D expenditure, patent ownership, and the presence of a specialized team in organizations led by women and men entrepreneurs. We find differences in management and organizational choices of narcissistic women entrepreneurs compared to their men counterparts. First, results show that women entrepreneurs are less narcissistic than men. Second, our findings show that gender moderates the effect of narcissism on the choice to have a qualified team into the start-ups. This means that narcissistic women entrepreneurs prefer being surrounded by qualified employees and peers than narcissistic men. Third, we find that narcissistic women entrepreneurs engage less in risk-taking activities, such as R&D expenditure, and narcissistic women entrepreneurs patent more their idea than narcissistic men entrepreneurs. The paper contributes theoretically to the entrepreneurship and management fields moving forward previous researches on the organizational impacts of narcissism and women entrepreneurs. Also, the paper has some practical implications for governments and policy makers.

*Keywords: Narcissism, Gender, Entrepreneurs, Start-ups, R&D expenditure, Qualified team, Patent ownership.*

### INTRODUCTION

The paper aims to analyze the conditions under which entrepreneur narcissism leads to different management of start-ups and whether the entrepreneurs' gender brings to act differently regarding organizational and managerial choices. Start-ups creation and management is a process full of difficulty and failure (Venkataraman *et al.*, 1990). Previous studies suggest that entrepreneurs' personality,

capabilities, and cognitive orientation have a significant influence on their willingness to persist in entrepreneurial activity and face off difficulties (Gatewood *et al.*, 1995, Nga and Shamuganathan, 2010, LeBrasseur and Zinger, 2005). For example, entrepreneurs who believe they can control the environment through their behaviors will be more likely to persist in entrepreneurial activities when difficulties are faced. The emphasis on entrepreneurial personality has led to consider both the bright and the dark side of personality traits by showing both the positive and negative effects on firms' outcomes (Resick *et al.*, 2009). In this paper, we focus on the controversial trait of narcissism, without considering the pathology and the extreme manifestations that can lead to misconducting behaviors. Narcissism refers to a set of self-centered behavior, such as high self-esteem, self-promotion, and self-enhancement (Leonelli *et al.*, 2019a). However, few studies have examined gender in the context of entrepreneurs' narcissism despite the prescribed differences in entrepreneurship between men and women (Ingersoll *et al.*, 2019).

Specifically, the paper aims to analyze whether narcissism is more prevalent among women or men entrepreneurs and whether narcissistic women entrepreneurs invest more, less, or equally in R&D, in protecting ideas and in the presence of a specialized team, compared to narcissistic men entrepreneurs. Drawing on upper echelon theory (Hambrick and Mason, 1984) and social role theory (Eagly *et al.*, 2000), we analyze 207 Italian entrepreneurs and start-ups in order to understand whether and how narcissism affects firm-level practices in organizations led by women and men entrepreneurs. In doing so, our work advances two heretofore-distinct studies: research on the organizational impacts of narcissism and women entrepreneurship, also giving useful, practical implications for governments and policy makers.

## **THEORETICAL BACKGROUND AND HYPOTHESES**

### *Entrepreneurs' narcissism*

Research on entrepreneur narcissism generally is linked to upper echelons theory, which posits that organizations are reflections of their manager's priorities and values (Hambrick and Mason, 1984). According to this theory, the personality of entrepreneurs and CEOs shapes organizational outcomes because of their capability to exert influence over firm strategy, policy, and practice (Hambrick, 2007). That influence is amplified in micro firms, such as start-ups, in which the entrepreneurs are surrounded by few peers and employees and also serve as CEOs, having formal and informal powers to explore and implement promising ideas (Abebe and Alvarado, 2013, Leonelli *et al.*, 2019a).

Previous research on entrepreneurs' narcissism has indeed revealed that their personality can have significant and lasting impacts on organizations (Galvin *et al.*, 2015, Leonelli *et al.*, 2019b, Leonelli and Masciarelli, 2019, Erkutlu Hakan and Chafra, 2017). The name narcissism comes from the Greek

mythological character Narcissus, known for his beauty, that fell in love with its reflection and drawn trying to reach his beloved. For this reason, it is still today associated with the concepts of sense of superiority, self-centeredness, entitlement, and a strong desire for authority and personal power (Galvin *et al.*, 2010). In this paper, we consider narcissism as a personality dimension, not a clinical disorder. Personality traits are generally stable over time and explain why people act differently in the same situation (Leonelli *et al.*, 2016). Narcissism per se contains different facets that are fundamental for effective leaders (Judge *et al.*, 2009). Narcissistic entrepreneurs need continuous approval from their “followers,” even if they tend not to show their insecurities. They describe themselves as having a strong personality, but at the same time, they would get upset if people do not notice how they look while they go out in public. Narcissism is, therefore, a complex personality dimension and includes both bright and dark sides, as each personality trait. Studies related to the narcissistic dark side, show that narcissists tend to act in insensitive and hostile ways because they tend to see others as inferior. Furthermore, they have a self-serving bias in interpreting information and often make decisions based on how these will reflect on their image and reputation. Therefore, they tend to lack empathy, have manipulating patterns in the conversation towards their interests and accomplishments (Judge *et al.*, 2009, Chatterjee and Hambrick, 2007). On the other side, the narcissistic bright side is associated with the idea of “charismatic leader”. The organizational goals will reflect the narcissistic entrepreneur characteristics, thus, entrepreneurs will share with peers and employees their enjoyment in doing a task and their apprehension during the challenge (Maccoby, 2012). Moreover, narcissistic leaders have grandiose visions for the company, and they manage to attract many followers due to these great visions (Maccoby, 2000).

#### *Gender differences in entrepreneurship*

Biological and behavioral differences characterize gender differences (Popescu, 2012). Biological determinism shows that the differences between women and men are attributed to their different biological nature. Behavioral differences refer to the differences between women and men taught. Summarizing women and men behave differently, and this impacts on the way they manage their organizations. Previous studies on gender differences in entrepreneurship underline several aspects that characterize differently men and women entrepreneurs (Adachi and Hisada, 2017, Vassakis *et al.*, 2018). The first aspect is the motivation of starting a new business. While men desire is to accept the “challenge”, women would start because of their “job satisfaction”. Men decide to create a new business to make things happen and accept the challenge to control their destiny. On the other hand, women decide to start a new venture due to a high degree of dissatisfaction with the previous occupation. The second aspect relies on the demographic differences. Women entrepreneurs are generally older and more educated than the men counterpart, which is almost ten years younger and

possesses more technical qualifications. Indeed, women in the lower-middle-income category tend to create new ventures, respect men that belong to the middle and upper-income category. The third aspect refers directly to the characteristics and management of the firm. Women are more likely to start a venture in the service industry, while men are more likely to prefer the manufacturing or high technology industry. Moreover, women tend to implement a safer strategy than men in terms of fundraising. Indeed, women start enterprises with smaller investment amounts than men. This because it is harder for women entrepreneurs to access finance than men. They generally have less capital and are more reliant on owner equity than men. There is also a large body of research that points to gender-based differences in credit terms, such as higher collateral requirements and interest rates, despite controlling for characteristics like industry and business size. Women are also less confident in accessing start-up financing. They do not apply for loans because they believe their business will not be successful. The fourth aspect relies on culture and society that often are unsupportive of women's entrepreneurship. According to Hamilton (2013), the bias roots of thinking that entrepreneurship is appearance traditionally associated with men are still sustained by cultural, social, and economic processes. Moreover, family policies can discourage female participation because women are affected by family obligations such as childcare and eldercare. Finally, the fifth aspect refers to the psychological differences between women and men. Even if they are both energetic, goal-oriented, and independent, men entrepreneurs show their self-confidence more than women. Furthermore, women seem to be more anxious, nervous in the face of uncertainty, but they are more altruistic, available, and well-disposed than men (Weisberg *et al.*, 2011). Women tend to perceive that they lack entrepreneurship skills, knowledge, and experience to start a business than men. Lastly, women have smaller and less effective entrepreneurial networks such as family, friends, and educators that can hinder the growth and development of their businesses, compared to the male counterpart that includes in their networks business services providers or other entrepreneurs (Shaw *et al.*, 2009).

#### *Entrepreneurs' gender and narcissism*

Narcissism is not an egalitarian phenomenon between gender, in fact, previous studies show that men are more narcissistic than women (Ingersoll *et al.*, 2019, Grijalva *et al.*, 2015). Men leaders fully reflect the values of grandiose narcissism, showing characteristics such as superiority (i.e., everything is due) and the need to appear or assert in order to achieve goals (Tschanz *et al.*, 1998). According to Morf and Rhodewalt (2001), differences in the levels of narcissism between men and women depend on the social roles they cover. Social role theory posits that behavioural sex differences spring from the differential social roles inhabited by women and men, especially those concerning the division of labour (Eagly *et al.*, 2000). Because women face significant limitations on their ability to display typical leadership qualities such as dominance, competitiveness and assertiveness, women's path to top

leadership is constrained and distinct from the path that men leaders follow (Glass and Cook, 2016). We consider gender differences focusing on the three best-known mechanisms linked to entrepreneurs' narcissism - *leadership*, *exploitation*, and *exhibitionism*. *Leadership* is linked to the desire to exercise authority and control over others. Men entrepreneurs show a greater desire for power; they are more motivated to obtain managerial roles and to emerge as leaders than women (Grijalva *et al.*, 2015). *Exploitation* refers to the levels of aggressiveness, the implementation of counterproductive behaviours, and the propensity to cheat. Men entrepreneurs show a great ability to assert themselves with the persuasion and exploitation of others than the women counterpart. Moreover, men are rewarded for public displays of anger because they are perceived as demanding and deserving. At the same time, women are often punished for similar behaviour because they are viewed as hysterical or too emotional (Ingersoll *et al.*, 2019, Brescoll and Uhlmann, 2008). Finally, *exhibitionism* relies on vanity and the desire to be at the centre of attention. However, while men are rewarded for self-promotion, women are evaluated negatively (Livingston *et al.*, 2012). Therefore, women in order to do not violate the stereotypical gender role expectations, they are discouraged from an early age to avoid narcissistic behaviour. Moreover, if they possess narcissistic characteristics (e.g., an inflated sense of self-importance, dominance, and lack of empathy), they prefer to do not openly display them. Thus, we state:

Hypothesis 1. Women entrepreneurs are less narcissistic than men entrepreneurs.

#### *Entrepreneurs' gender, narcissism and start-ups dynamics*

Regarding the start-up's dynamics, we consider the amount that start-up invest in R&D (i.e., Start-up R&D expenditure), the presence of a qualified team (i.e., Start-up qualified team), and the patent ownership (i.e., Start-up patent ownership). Narcissistic entrepreneurs see the start-ups as an extension of themselves and tend to seek out extreme and grandiose strategies that put their organizations at risk (Chatterjee and Hambrick, 2007). However, the decisions about investments in R&D are more important for start-ups entrepreneurs than for large companies (Whalley, 2011). In general, the evaluation of investments in R&D is complicated because it relates to uncertainties associated with the eventual profitability of the R&D project. Not only is the value of the output of the R&D project generally uncertain, but there is often even greater uncertainty over the expected cost to completion of the R&D project (Whalley, 2011). However, women are more risk-averse than men. Women entrepreneurs generally avoid constraints that limit their ability to drive organizational initiatives, particularly those that are risky, novel, or harmful to the organization. As a result of these constraints, we predict that narcissistic women entrepreneurs - unlike their male counterparts - will be unable to pursue high-risk practices such as invest more in R&D expenditure. Thus, we hypothesize:

Hypothesis 2. Gender moderates the effect of narcissism on the amount of R&D expenditure of start-ups such that narcissistic women entrepreneurs will invest less in R&D than narcissistic men entrepreneurs.

The presence of a qualified team inside a start-up is a surplus. Skilled team members can offer extensive knowledge, access to resources not available internally, and can contribute broad experience (Kor, 2003). Entrepreneurs' personal characteristics impact on the presence or not to a qualified team inside start-ups and on the relationship that those entrepreneurs will have with the team. Narcissistic entrepreneurs may feel threatened by the presence of a qualified team because they prefer to act independently (Maccoby, 2000), impose their view on the team (Rosenthal and Pittinsky, 2006), and being the centre of attention (Lumpkin and Dess, 1996). Hence, the presence of competent people may obscure the magical aura.

However, there are differences in the levels of narcissism between women and men entrepreneurs. Women entrepreneurs show less narcissistic characteristics than the men counterpart, and, because of their intrinsic features, they might prefer being surrounded by qualified peers and employees. As we said, according to Shaw *et al.* (2009), women have smaller and less effective entrepreneurial networks than men, thus the presence of a qualified team can contribute to achieving more resources and information (Witt, 2004, Menzies *et al.*, 2006). For this reason, we state:

Hypothesis 3. Gender moderates the effect of narcissism on the presence of a qualified team in the start-ups such that narcissistic women entrepreneurs prefer more the presence of a qualified team than narcissistic men entrepreneurs.

Discovering new technologies is a challenging task, but create a start-up based on such discoveries requires additional tenacity and a stronger sense of control (Markman *et al.*, 2005). Entrepreneurs should convert their new technological discoveries into working prototypes and also transform them into rent-yielding products and services (Markman *et al.*, 2005). Self-efficacy and self-belief are core characteristics that favour entrepreneurs in make discoveries but also in obtaining patents that are frequently refuted before attaining patent status (Gist and Mitchell, 1992, Bandura, 2001). Since the process of discovery is overspread of technological obstacles, success in obtaining patents rests heavily on strong self-belief (Markman *et al.*, 2005). Hence, determination, perseverance, the ability for problem-solving, and tolerance for failure are fundamental in order to achieve the patent goal (McKay, 2001). Those are characteristics that women narcissistic entrepreneurs possess in higher values respect to men entrepreneurs. Thus, we state:

Hypothesis 4. Gender moderates the effect of narcissism on start-ups patent ownership such that narcissistic women entrepreneurs patent more their idea than narcissistic men entrepreneurs.

## METHODOLOGY

### *Sample and procedure*

The study relies on a sample of Italian start-ups enlisted in the Italian Chamber of Commerce register. The initial sample included 500 start-ups randomly selected in the Italian territory. Entrepreneurs are contacted via LinkedIn profile or e-mail address, to outline our project and invite them to be part of it. Those that agreed to participate were sent the link to the online survey. Among them, 207 entrepreneurs answered the questionnaire (28.36% response rate), which is acceptable based on other papers focused on entrepreneur surveys (Block *et al.*, 2013). The survey was administered between September and November 2019; three reminder emails were sent to encourage response.

Data for the analysis consists of survey data and secondary data from a public database, which increases external validity. Entrepreneurs' personal information was collected through the survey, start-ups' financial information was gathered consulting the Aida database, which contains comprehensive information on Italian firms, and information about Patents was gathered from the Italian Patent register.

### *Measure*

#### *Dependent and Independent variables*

Entrepreneur narcissism was measured using the short version of the Narcissistic Personality Inventory (NPI-16) developed by Ames *et al.* (2006) since entrepreneurs are usually time-constrained (Wallace & Baumeister, 2002). We used a five-point Likert scale version adopted by Gentile (2013) removing the non-narcissistic statement from each item. The original survey items were in English, we translated into Italian following the rigorous back-translation technique of Brislin (1980). The independent variables are all dummy variables. *Start-up R&D expenditure* has the value of one if the start-up spends at least 15% of its annual costs in R&D, and zero if it does not. Finally, *Start-up qualified team* has the value of one if the total workforce includes at least 1/3 of PhDs, or at least 2/3 of the team hold a master's degree, and zero if it does not. *Start-up patent ownership* has the value of one if the start-up owns at least one patent, and zero if it does not. It has been decided to use a dummy variable because small firms generally have low numbers of patents.

#### *Control variables*

In our model, we use six control variables controlling for individual, firm, and environment level factors to minimize variances that are not directly linked to our study. At the individual level, we controlled for entrepreneur's education measured on a four-point ordinal scale (i.e., 1=high school, 2=bachelor's degree, 3=master's degree, and 4=doctoral degree), and age measured on a four-point

ordinal scale (i.e., 1<30 years old, 2=between 30 and 39 years old, 3=between 40 and 49 years old, and 4>50 years old). Entrepreneurs with longer/higher education are likely to have access to a greater amount of resources to support their entrepreneurial ambitions, and a stronger ability to recognize opportunities and exploit them successfully (Altinay and Wang, 2011). Entrepreneur age can influence the level of aggressiveness and risk-taking, with older entrepreneurs generally being less aggressive and risk-prone (Bertrand and Schoar, 2003). At the firm level, we controlled for start-up's age measured as the effective years from firm establishment (reference year 2020), and start-up's initial capital measured on a four-point ordinal scale (i.e., 1<5,000€, 2=between 5,000€ and 10,000€, 3=between 10,000€ and 50,000€, and 4>50,000€). The age and the capital of start-ups impact on the choice to invest and pursue innovation, for instance, a higher initial capital can push start-ups to make riskier and more novel investments (Nanda and Rhodes-Kropf, 2013). Finally, at the environmental level, we controlled for industry sector which refers to the SME's main activity and is captured by the industry dummies at the two-digit ATECO code (i.e., classification of economic activities adopted by the Italian Institute of Statistics), and location captured by Italian area dummies (i.e., Nord-west, Nord-east, Center, and South and islands). The exact geographical location of the start-up may provide a cultural milieu affecting the propensity for risk and innovativeness, and the firm owner's entrepreneurial orientation (Kreiser *et al.*, 2010).

#### *Analysis*

Exploratory factor analysis (EFA) was conducted to extract the appropriate number of factors from the narcissism scales. According to Osborne and Costello (2009), we examined the eigenvalue graph to identify natural curves or breakpoints. The graph suggested retaining only one factor because of the noticeable slope between the first and second factor. Cronbach's alpha 0.80. Our first hypothesis is tested using ANOVA and Cohen's D to assess the difference in means from two unequal sample sizes. Given the unequal sample sizes, we also performed a matched-sample test of Hypothesis 1. To test Hypotheses 2, 3, and 4, we employed generalized linear models. We specified a Gaussian (normal) distribution with an identity link function. This same approach has been used in prior studies examining the effect of CEO narcissism (Chatterjee and Hambrick, 2007, Chatterjee and Hambrick, 2011).

#### *Results*

Descriptive statistics and correlations of the examined variables are presented in Table 1 and Table 2.

| Variable                  | Full sample<br>(n=207) |      | Female sample<br>(n=94) |      | Male sample<br>(n=113) |      |
|---------------------------|------------------------|------|-------------------------|------|------------------------|------|
|                           | Mean                   | SD   | Mean                    | SD   | Mean                   | SD   |
| Entrepreneur narcissism   | 0.01                   | 0.89 | -0.39                   | 0.92 | 0.35                   | 0.71 |
| Entrepreneur education    | 2.82                   | 0.89 | 2.83                    | 0.81 | 2.81                   | 0.95 |
| Entrepreneur age          | 2.67                   | 0.93 | 2.55                    | 0.91 | 2.76                   | 0.94 |
| Entrepreneur gender       | 1.55                   | 0.50 |                         |      |                        |      |
| Start-up age              | 6.32                   | 2.20 | 4.41                    | 1.93 | 7.91                   | 0.49 |
| Start-up sector           | 10.28                  | 3.47 | 10.63                   | 3.03 | 9.98                   | 3.79 |
| Start-up location         | 2.09                   | 1.21 | 2.02                    | 1.21 | 2.15                   | 1.21 |
| Start-up initial capital  | 2.35                   | 0.91 | 2.27                    | 0.87 | 2.42                   | 0.94 |
| Start-up R&D expenditure  | 0.60                   | 0.49 | 0.65                    | 0.48 | 0.56                   | 0.50 |
| Start-up qualified team   | 0.40                   | 0.49 | 0.39                    | 0.49 | 0.41                   | 0.49 |
| Start-up patent ownership | 0.19                   | 0.39 | 0.15                    | 0.36 | 0.22                   | 0.42 |

Table 1. Table 10. Descriptive statistics

|                             | 1     | 2      | 3     | 4     | 5     | 6     | 7 |
|-----------------------------|-------|--------|-------|-------|-------|-------|---|
| 1. Entrepreneur narcissism  | 1     |        |       |       |       |       |   |
| 2. Entrepreneur education   | -0.02 | 1      |       |       |       |       |   |
| 3. Entrepreneur age         | 0.07  | -0.09  | 1     |       |       |       |   |
| 4. Start-up age             | *     | -0.00  | 0.09  | 1     |       |       |   |
| 5. Start-up sector          | -0.02 | 0.15** | -0.05 | -0.06 | 1     |       |   |
| 6. Start-up location        | 0.02  | 0.17** | -0.01 | 0.12  | 0.08  | 1     |   |
| 7. Start-up initial capital | -0.04 | -0.04  | 0.05  | 0.11  | -0.02 | -0.10 | 1 |

Table 2. Table 11. Correlations (\*\*= $p < 0.05$ )

Hypothesis 1 predicts that women entrepreneurs will be less narcissistic than men entrepreneurs. Specifically, in the mean comparison within Table 2, women entrepreneurs scored substantially lower on the narcissism measure than the men counterpart (-0.39 vs. 0.35). However, our findings support Hypothesis 1 showing that there is a statistically significant difference between groups as determined by the one-way ANOVA test ( $F(1, 205)=42.44, p=0.000$ ). The Tukey test revealed that entrepreneurs' narcissism is statistically significantly higher in men entrepreneurs compared to women entrepreneurs ( $0.74 \pm 0.11, p=0.000$ ).

Table 3 presents our generalized linear models results, column 1 reports the results for the total sample, while columns 2 and 3 present cross-sectional analyses by gender. Hypothesis 2 suggests that gender moderates the effect of narcissism on the amount of start-ups' R&D expenditure such that narcissistic women entrepreneurs will invest less in R&D than narcissistic men entrepreneurs. In Panel A section, the not significant interaction between gender and narcissism ( $p=0.569$ ) allows us, as a start, to reject Hypothesis 2. Considering the results showed in columns 2 and 3, we can see that only in the female sample, narcissism has a negative and statistically significant effect on start-ups' R&D expenditure. This result could be linked to the different ways of dealing with risks between men and women, confirming that more narcissistic women entrepreneurs engage in significantly fewer risky activities, allowing us to support our Hypothesis 2 partially. Hypothesis 3 suggests that gender moderates the

effect of narcissism on the presence of a qualified team into start-ups. This means that narcissistic women entrepreneurs will prefer being surrounded by qualified employees and peers than narcissistic men entrepreneurs. In Panel B section, the interaction term between gender and narcissism is negative and statistically significant ( $p < 0.1$ ), suggesting that the gender attenuates the effect of narcissism on the presence of a qualified team. Women entrepreneurs with high levels of narcissism prefer being surrounded by qualified employees and peers than their male counterparts. The results in columns 2 and 3 confirm that narcissism has a positive and statistically significant effect on the propensity to work in and with a specialized team in our women entrepreneur sample. Finally, Hypothesis 4 suggests that gender moderates the effect of narcissism on the start-up's patent ownership. In this vein, narcissistic women entrepreneurs patent more their idea than narcissistic men entrepreneurs. In the full sample column of the Panel C section, the interaction term gender and narcissism has a negative and not statistically significant result, and this, at first sight, leads us to reject our Hypothesis 4. However, the result in the female sample column confirms that narcissism has a positive and statistically significant effect on patents' ownership. Still, this result is not significant in the male sample, showing that as the level of narcissism increases, women have a higher propensity to patent than men.

In sum, our results support Hypothesis 1 and 3, and partially Hypothesis 2 and 4.

|  | Full sample<br>(n=207) | Female sample<br>(n=94) | Male sample<br>(n=113) |
|--|------------------------|-------------------------|------------------------|
| <b>Panel A. Dependent variable: Start-up R&amp;D expenditure</b> |                        |                         |                        |
| Entrepreneur narcissism  | -0.149                 | -0.104**                | -0.060                 |
| Gender   | -0.244**               |                         |                        |
| Gender × Entrepreneur narcissism                                 | -0.050                 |                         |                        |
| Entrepreneur education   | -0.001                 | -0.096                  | -0.059                 |
| Entrepreneur age   | -0.009                 | -0.059                  | -0.027                 |
| Start-up age   | -0.065**               | -0.051**                | -0.232**               |
| Start-up sector  | -0.014                 | -0.020                  | -0.009                 |
| Start-up location  | -0.060**               | -0.071                  | -0.055                 |
| Start-up initial capital   | -0.030                 | -0.043                  | -0.035                 |
| Constant   | -0.580***              | -0.535*                 | -1.232                 |
| <b>Panel B. Dependent variable: Start-up qualified team</b>      |                        |                         |                        |
| Entrepreneur narcissism  | -0.290**               | -0.134**                | -0.019                 |
| Gender   | -0.171                 |                         |                        |
| Gender × Entrepreneur narcissism                                 | -0.159*                |                         |                        |
| Entrepreneur education   | -0.033                 | -0.162**                | -0.036                 |
| Entrepreneur age   | -0.023                 | -0.001                  | -0.036                 |
| Start-up age   | -0.062**               | -0.049*                 | -0.200**               |
| Start-up sector  | -0.006                 | -0.007                  | -0.002                 |
| Start-up location  | -0.029                 | -0.004                  | -0.045                 |
| Start-up initial capital   | -0.031                 | -0.049                  | -0.031                 |
| Constant   | -0.327                 | -0.153                  | -1.849**               |
| <b>Panel C. Dependent variable: Start-up patent ownership</b>    |                        |                         |                        |
| Entrepreneur narcissism  | -0.109                 | -0.073*                 | -0.018                 |
| Gender   | -0.031                 |                         |                        |
| Gender × Entrepreneur narcissism                                 | -0.046                 |                         |                        |
| Entrepreneur education   | -0.038                 | -0.049                  | -0.086**               |
| Entrepreneur age   | -0.017                 | -0.013                  | -0.028                 |

|                          |         |         |        |
|--------------------------|---------|---------|--------|
| Start-up age             | -0.001  | -0.005  | -0.060 |
| Start-up sector          | -0.004  | -0.007  | -0.000 |
| Start-up location        | -0.007  | -0.037  | -0.001 |
| Start-up initial capital | -0.055* | -0.072* | -0.048 |
| Constant                 | -0.144  | -0.017  | -0.208 |

Table 3. *Table 12.* Regressions results (\*= $p < 0.1$ ; \*\*= $p < 0.05$ ; \*\*\*= $p < 0.01$ )

## DISCUSSIONS AND CONCLUSIONS

The paper analyzes whether narcissism is prevalent among women entrepreneurs and the differences in narcissistic women entrepreneurs' behaviors in the management and organizational choices of their start-ups than men counterparts. Findings demonstrate that women entrepreneurs are less narcissistic than men. Additionally, our results suggest that gender moderates the effect of narcissism on the choice to have a qualified team into the start-ups. This means that narcissistic women entrepreneurs prefer being surrounded by qualified employees and peers than narcissistic men. Regarding the R&D expenditure and the patent ownership, our hypotheses are partially confirmed, showing that narcissistic women entrepreneurs engage less in risk-taking activities, such as R&D expenditure, and narcissistic women entrepreneurs patent more their idea than narcissistic men entrepreneurs. The current study extends the existing literature by applying a gendered lens to entrepreneurs' narcissism in order to interrogate whether they behave and manage their start-ups differently. To date, research on entrepreneurs' narcissism has focused almost exclusively on men because most entrepreneurs are men. Few studies have analyzed whether entrepreneur gender changes the way to manage start-ups. Filling this gap in our understanding is important for two reasons. First, there is evidence that the manifestation of narcissism varies by gender and that narcissistic behaviors are differently perceived when displayed by women than by men (Grijalva *et al.*, 2015). Further, narcissism may manifest differently among entrepreneurs due to the social construction of gender norms and the disparate treatment between genders (Ingersoll *et al.*, 2019). For instance, women entrepreneurs who display narcissistic personalities are perceived by men employees as less effective leaders than equally narcissistic men entrepreneurs (De Hoogh *et al.*, 2015). This suggests that narcissistic women entrepreneurs may face biases that narcissistic men entrepreneurs do not.

In practice, the paper has important implications for governments and policymakers, especially in times of global crisis. Women are more able than men in managing and changing their businesses to survive because they are always forced to rely on their resources (see the difficulties in obtaining loans) (Pines *et al.*, 2010). Furthermore, to increase the number of women entrepreneurs, governments and policymakers should create special funds for them, encourage networking, offer business and financial support for industries that have special relevance for women (i.e., businesses on the internet or local tourism), and give them the opportunity to be supported in managing nonworking commitments. The

study originality relies on the sample that is composed of entrepreneurs' real data. We do not use unobtrusive measures of narcissism, such as analysis of CEO photographs and firms' reports. However, the present study shows some limitations that suggest avenues for further research. Our results are based on an Italian sample, and in this vein, future studies can consider the impact of different cultures on the level of entrepreneurs' narcissism.

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## EXPLORING DRIVERS OF PSYCHOLOGY WELL-BEING AT MUSIC FESTIVALS

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### ABSTRACT

The aim of the current study is to analyze tourist engagement with music festivals and their psychological well-being is achieved through surprise consumption, positive affect, arousal delight and satisfaction. A sample of 394 usable questionnaires allow us to understand that surprising consumption, arousal, positive affect and satisfaction are very important drivers to engage visitors to music festivals. Engaged tourists are more willing to reach a positive psychological well-being.

*Keywords: tourist engagement, surprising consumption, emotional states, Psychological well-being, music festival*

### INTRODUCTION

Music festivals are a big phenomenon all over the world (BBC News, 2019). People travel for attending music festivals because they are a perfect opportunity to share live music with their peers and even with strangers that they can easily know for being all in the same context. Indeed, music festivals provide plenty chances for socializing, listening to music, and to participate in social activities (Packer and Ballantyne, 2011; Wakefield, 2016).

Despite growing interest, the literature about festivals and events tourism is still in an initial phase (Laing, 2018). In addition, very few studies have been carried out with the aim to find what makes a festival outshine in the visitors' minds, as well as to look for their benefits (Ballantyne, Ballantyne, and Packer, 2014).

The case of Portugal is pertinent for this study, since its visibility has increased tremendously, receiving every year about 21 million visitors (visit Portugal, 2017). Portugal's tourism boom resulted in having been recognized in the previous year of 2018 as the best tourist destination in the world for the second consecutive year by the *World Travel Awards* (World Travel Awards, 2018). Portugal provides some of the best circumstances for the organization of music festivals, starting with the climate, which is characterized by being mainly warmer, and also with the diversity of landscapes. In this vein, with the intention to go further in understanding drivers of engagement of music festival

tourists, the current study to analyze how tourist engagement with music festivals and their psychological well-being is achieved through emotional states and surprise consumption. The research question is: how emotional states and surprise consumption act as drivers of tourist engagement and psychological well-being at music festivals?

The remainder of this paper presents the theoretical background, method, and data analysis. The last part is devoted to conclusions and implications.

## THEORETICAL FRAMEWORK

### *Tourists' emotional states*

Emotions can be defined as a *"complex phenomena characterized by a combination of cognitive and experiential factors, psychological states, and behavioural expressions."* (Rodríguez-campo et al., 2019, p.2).

Due to its complexity, emotions can be considered either an antecedent or an outcome of the customer experience (Palmer, 2012). As noted by Brakus et al. (2009) emotions can be seen as a consequence that occur in the inner self after consumption experiences induced by stimuli, while constitutes a relevant determining factor of satisfaction and purchase decisions (Brunner-Sperdin, Peters, and Strobl, 2012; Barsky and Nash, 2002). Moreover, by being an outcome of an experience, its study helps organizations to realize how they should customize experiences (Knobloch et al., 2017; Rodríguez-campo et al., 2019).

Lee, Lee, Lee, and Babin (2008) posit that emotions can be treated as outcomes of environmental perceptions. More recently, there has been raised interest in emotional states, particularly on consumer delight (Finn, 2005; Loureiro, Miranda, and Breazeale, 2014). In order to measure delight, some researchers have used the same scales that are used to measure emotions (Loureiro et al., 2014; MiRan, Vogt, and Knutson, 2015). These studies have stated that arousal and positive affect are antecedents of customer delight. Finn (2005) present a 13 emotions measures which were based on the original measurement developed by Oliver (1997). The emotions' measures are split between four factors such as delight, arousal, positive affect and surprising consumption. The surprising consumption is generally viewed as an emotion which represents the result of the difference between the actual performance and expectations (Oliver, 1997; Finn, 2005). Both arousal and positive affect are the fundamental antecedents of customer delight (Oliver, 1997). Arousal refers to the extent to which people feel excited and active (Loureiro et al., 2014). While positive affect is conceptualized as the set of feeling of pleasure and happiness (Finn, 2005). Lastly, delight can be regarded as an emotional response that englobes surprise, arousal, and positive affect (Finn, 2005; Loureiro et al., 2014; Oliver, 1997). As a matter of fact, the concepts of satisfaction and delight are quite similar, but they are discussed as different constructs (Finn, 2005). In this vein, the following hypotheses arise:

H1: music festival tourist delight is a function of surprise consumption, arousal and positive affect

H2: positive affect is positively associated with satisfaction

*Tourist engagement and psychological well-being*

The literature on consumer engagement has emerged from the Service-Dominance (S-D) logic (Hollebeek, 2014). The Vargo and Lusch's (2004) study makes an original contribution, considering the shift in marketing over the last decades, where they stress out the importance of the exchange of intangible goods towards the tangible ones. An example of intangible goods can be knowledge, procedures, and specialized skills, and the new S-D logic developed by these authors can in this way lead to more ample perspective by combining goods with services (Vargo and Lusch, 2004). The service-dominance view seeks to establish focus on relationships and on the value of co-creative experiences (Brodie et al., 2011; Hollebeek, 2014; Vargo and Lusch, 2004; Rosado-Pinto and Loureiro, 2020). Customer engagement can be defined as the result of the interaction between a customer and a firm (Kumar et al. 2010; Brodie et al. 2011). Hollebeek, Glynn, and Brodie (2014, p. 154), propose a definition for consumer-brand engagement as the *"consumer's positively valenced brand-related cognitive, emotional and behavioural activity during or related to focal consumer/brand interactions"*. While, Pansari and Kumar (2017, p. 295) draw our attention for the customers' activities which give rise to CE and define it *"as the mechanics of a customer's value addition to the firm, either through direct or/and indirect contribution"*.

Kumar et al. (2010) find that exist diverse forms for a consumer affect a firm performance, which consequently generates customer engagement, which is composed by four indicators that can contribute to level of customer engagement between customers and brands/companies (customer purchases, customer referrals, customer influence and customer knowledge). Direct contributions encompass the customer purchases, so when customers buy to a company any product/service they are generating profit (Kumar and Pansari, 2016). Whereas, the indirect contributions are constituted by customer referrals, customer influence and customer knowledge (Pansari and Kumar, 2017). Customer referrals occurs when a customer can attract others that would not be through the direct channels of marketing. Customer influence is achieved through the social media channels that allow people to exchange information about the brand or products in a real-time way. Finally, customer knowledge is linked to the creation of value which can be generated when a customer gives feedback about a product or service to a company/brand.

According to Pansari and Kumar (2017), the process of engagement has to be created on the basis of satisfaction and emotion, which they claim to be the antecedents. In addition, these authors claim that satisfaction is usually linked to the direct contributions whereas emotions is linked to the indirect contributions. Lemon and Verhoef (2016) claim for the evidence of a link between customer experience

and customer engagement. They enlighten that nowadays customer engagement can be more witnessed particularly because the current touch points of the customer's journey experience are very interactive, which allow to obtain customer's social and emotional reactions.

Packer and Ballantyne (2011) claim that engagement in music festivals context can provide union between the festival attendees because they are in the same space and for a similar purpose, which results in a bigger sense of community. As noted by Snell (2005), music festivals are normally held for successive days which offers to the participants a great opportunity for them to feel completely absorbed by the experience. For instance, music festivals that have camping access will naturally concede even higher chances to occur engagement between visitors, as it is formed a sense of community. The consumer engagement can occur in two ways, physically and digitally (Laurell and Björner, 2018), and the manifestation of digital festival engagement has happened mainly in social media. Kumar and Pansari (2017) argue that the customer influence, one form of indirect contribution for engagement, is normally linked with the informative content posted in the social media platforms. Laurell and Björner (2018) point out that ultimately visitors have become more and more through the digital way. In sum, emotional states related to the festival may influence the way customers are engaged with the festival. Therefore, we suggest the following hypothesis:

H3: tourist engagement is a function of music festival tourist delight, positive affect and satisfaction

Music festival should also be connected to psychological well-being. The discussion around

The concept of well-being emerged out of the curiosity to better understand the meaning of happiness and human life satisfaction in the field of sociology, but over time its study has been extended to others areas such as sciences and economy (Smith and Diekmann, 2017; Shahrabani et al. 2019). Indeed, subjective well-being (SWB) has received considerable attention to determine the link between the people's possession of goods that grant them a better life, that is material wealth, with their reported levels of happiness. We may claim that there are two domains characterizing SWB. The cognitive component encompasses the perception of one's life overall satisfaction as well as another life's accomplishments, such as personal relationships and professional life. Regarding the affective domain, it comprises positive and negative moods at the exact moment of the experience (Jalloh, Flack, and Chen, 2014). The affective is considered positive when individuals experience emotions such as joy, elation and affection, and negative when they experience emotions such as guilt, anger, and shame (Parsons, Mackenzie, Filep, and Brymer, 2019).

The cognitive and affective domains were, in turn, related to another two perspectives of well-being (Parsons et al., 2019), seen as antagonistic and designated by Hedonia and Eudaimonia. The Hedonic philosophy is mostly connected with the sensation of pleasure (Huta, 2013) and inhibition of pain (Huta, 2013). Hedonia perspective is concerned to the positive feelings which can arise from the

individuals' engagement at the moment they are performing an activity. However, eudaimonia is more related to the outcomes that can be accomplished with an activity, even if those outcomes emerge later than the end of the activities (Yolal et al., 2016). Following this line of reasoning, eudaimonic perspective consider as the most relevant aspects the personal development and the reach of the human's potential (Smith and Diekmann, 2017). Psychological well-being is embedded in this last perspective and may be regarded as such as autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance (Ballantyne, Ballantyne, and Packer, 2014). Taken this line of thoughts, a tourist engaged with the music festival will be more likely to reach psychological well-being than a tourist not engaged. Thus, we suggest that:

H4: tourist engagement is positively associated with psychological well-being

## **METHOD**

The online questionnaire was spread through online communities of people who regularly visit music festivals. The questionnaire was open for not much longer than two months (27<sup>th</sup> of December to 1<sup>th</sup> of February). The questionnaire was based on the literature review and all measurement items were adapted from existing instruments. Thus, all items were measured using a 6-point Likert-type scale. Emotions and surprise consumption were measured based on Finn (2005), customers engagement adapted from Kumar and Pansari (2016) (dimensions of influence and knowledge) and psychological well-being (Ballantyne, Ballantyne, and Packer, 2014). A total of 394 fully completed and usable questionnaires (after excluding those with missing values, inconsistent responses or extreme multivariate outliers) were collected from the 400 distributed. Of the participants, 53% are female and 47% are male. Most of the sample belongs to the 18-24 age range (59%), followed by the 25-34 age range (21%).

## **RESULTS**

The PLS approach was employed to test the model. The reason lies in the fact that the model has second order formative constructs (the repeated indicators method) and we do not have a large sample size (Hair et al., 2017). The PLS model is analyzed and interpreted in two stages. First, the adequacy of the measurements is assessed by evaluating the reliability of the individual measures and the discriminant validity of the constructs (Hair et al., 2017). Then, the structural model is appraised. All items have item loading values above 0.7 and all constructs are reliable since the composite reliability values exceed the 0.7 threshold and even the strictest one of 0.8 (Hair et al., 2017). The measures demonstrated convergent validity as the average variance of manifest variables extracted by constructs (AVE) was at least 0.5. Discriminant validity was examined via the Heterotrait-Monotrait

ratio of correlations, with all results taking values below 0.90 and therefore we can claim that the discriminant validity of the constructs has been established.

Table 1. Measurement Results.

|                          | Cronbach's Alpha | rho_A | Composite Reliability | Average Variance Extracted (AVE) |
|--------------------------|------------------|-------|-----------------------|----------------------------------|
| Arousal                  | 0.853            | 0.863 | 0.910                 | 0.772                            |
| Delight                  | 0.728            | 0.736 | 0.846                 | 0.647                            |
| Engagement               | 0.892            | 0.899 | 0.913                 | 0.602                            |
| positive affect          | 0.843            | 0.846 | 0.905                 | 0.761                            |
| psychological well-being | 0.953            | 0.954 | 0.964                 | 0.843                            |
| Satisfaction             | 0.912            | 0.912 | 0.958                 | 0.919                            |
| Surprising consumption   | 0.758            | 0.762 | 0.892                 | 0.805                            |

The structural results are presented in Table 2. All path coefficients were found to be significant at the 0.001 or 0.05 levels, except the causal delight → tourist engagement. The  $Q^2$  is positive, so the relations in the model have predictive relevance. The model also demonstrated a good level of predictive power ( $R^2$ ). In fact, the median level of predictive power ( $R^2$ ) reveals a good overall fit of the structural model (see Table 2).

Table 2. Structural results.

| Path  | Beta  | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values |
|---|-------|----------------------------|--------------------------|----------|
| arousal → delight                             | 0.192 | 0.063                      | 3.031                    | 0.003    |
| arousal → positive affect                     | 0.708 | 0.044                      | 15.961                   | 0.000    |
| delight → tourist engagement                  | 0.113 | 0.081                      | 1.393                    | 0.164    |
| tourist engagement → psychological well-being | 0.639 | 0.032                      | 19.796                   | 0.000    |
| positive affect → delight                     | 0.520 | 0.062                      | 8.373                    | 0.000    |
| positive affect → tourist engagement          | 0.187 | 0.079                      | 2.373                    | 0.018    |
| positive affect → satisfaction                | 0.537 | 0.057                      | 9.485                    | 0.000    |
| satisfaction → tourist engagement             | 0.134 | 0.064                      | 2.077                    | 0.038    |
| surprising → arousal                          | 0.477 | 0.060                      | 8.001                    | 0.000    |
| surprising → delight                          | 0.188 | 0.046                      | 4.068                    | 0.000    |
|   | $R^2$ |                            | $R^2$                    |          |
| Arousal                                       | 0.228 | positive affect            | 0.502                    |          |
| Delight                                       | 0.616 | psychological well-being   | 0.408                    |          |
| tourist engagement                            | 0.137 | satisfaction               | 0.288                    |          |

## CONCLUSION AND IMPLICATIONS

From the results there is evidence that surprising consumption proved to be a very important driver of engagement, particularly through arousal, positive affect. However, the delight is not significantly associated to tourist engagement, but this last contribute to psychological well-being. Some researchers (e.g., Shane and Patterson. 2010; Packer and Ballantyne. 2011; Packer and Ballantyne, 2014) have recognized the importance of exploring the drivers of tourist engagement in the context of music festivals, but up until now there is still a gap in the literature. This research has contributed for the field of tourism by giving new insight for the gap.

Regarding managerial implication. Firstly, this study has revealed that festival organizers should invest in providing a good atmosphere, an attractive program and enough facilities to the festival attendees. Secondly, in this study we find that music festivals that induce tourist' feelings of surprise leads to better chances of engagement. This can be explained by the fact that music festivals offer an experience different from the usual consumption experiences by its experiential nature. Consequently, festival managers should concentrate on how to surprise their visitors, for instance, by offering a festival program with the best bands and by offering a unique atmosphere.

All studies face limitations, and this is not an exception, but as it matters to understand how the restraints were managed during this study and because it is important to realize how they should be interpreted. Firstly, one of the limitations is the fact of the sample is not completely balanced within the age groups, as the representation of the sample is mostly characterized for younger people. Yet, it is also important to understand that most tourists of music festival tend to be young people.

Secondly, as the research method was quantitative, there might be some disadvantages, such as the usage of closed questions and the high probability of participants' misapprehension relatively to the items included in the measurement scales, which can lead to more untrue responses. When conducting interviews instead of surveys, it is possible to clarify the participants about what they did not comprehend. Moreover, through questionnaires is difficult to obtain in-depth information and consider the different perspectives the participants may have regarding the topic which are not included in the scale items.

Lastly, the inclusion of the loyalty variable in this model could be an important issue for further research.

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## TRAVEL LAW AND SHARING ECONOMY

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### ABSTRACT

Travel Law constitutes a specific, self-existent field of law, partly coinciding with Tourism Law whilst the concept of “industry” related to travels and hotel business is in decline, at least in constitutional terms. This branch of law refers to rights and obligations of the persons involved in various types of trips. One of its most significant sources consists in EU Regulation 261/2004, particularly promoted by the jurisprudence of the EU Court of Justice in case of flights delayed more than three hours (“Sturgeon case”). However, in the comparable “Aegean case”, relevant to the cancellation of a flight due to the insolvency of the tour operator, the airline involved was the winner. Besides, States and legislators have to cope with new rights and professional roles, such as the rights to be a tour guide, particularly in the competitive case of free tours, and to enact the role of quasi hotelier, through digital platforms, like GuruWalk and Airbnb respectively. Travel Law is produced more and more by private individuals to enhance their income as well as by ambitious start-up companies in the framework of sharing economy. Last but not least, there has been the phenomenon of reversing the role of the official tourist guide, compared to persons, such as the tourist and the informal guide, and to things, exemplified by travel guides (books). This phenomenon happens on international scale whilst another reversal has already been produced, at a national level. In Greek, the tourist is called either “tourist” or “periigitis”, a word that means a person who visits destinations for leisure purposes and in ancient Greek was used to denote the guide against “teoros” (tourist) and, in a limited way, the authors writing down their knowledge which was acquired through their travels.

*Keywords: Aegean case; Air passengers' rights; Free Tours; Hospitality / "Turismofilia", Right to be a Guide; Tourist / "Periigitis"; Travel Law; Travel Industry / Tourism Industry; Sharing economy / Collaborative economy; Sturgeon case*

### INTRODUCTION: FROM FICTION TO NORMATIVITY

Travels have been an important activity of human beings on a diachronic basis. However, they have constituted something particularly crucial in the current century, which from scratch has been marked

by speed. This remark is valid not only for trips but also for other activities, such as telecommunications. Anyway, electronic communications and trips by means of planes and helicopters have a normativity in common, which is called "Air Law" or (in Greek) "Air Space Law". In other words, Air Law includes Civil Aviation Law as well as Telecommunications Law, although the mainstreaming use of this term refers only to rules on air transport.

A French lawyer of the nineteenth century, Jules Verne, is best known for his fictional travel narratives whilst nowadays a lot of the travel inspirations of the Father of Science Fiction have been transformed into reality and law has been specialized in trips. As already implied, the importance of journeys, let alone with dynamic means of transport like the air ones, has led to the emergence of a new field of law. Travel Law is a specific branch, in spite of its general character, compared to Air Law. The current paper consists in an investigation on the profile and content of this normativity. The research on the matter focuses on the following hypothesis:

*We suppose that Travel Law is a consumer-based branch, due to sharing economy.*

This hypothesis constitutes the central investigative suspicion of a wider research project on Travel Law, with emphasis on consumers' rights.

As far as the structure of this paper is concerned, there are three subdivisions in its main part.

The first part has a general profile, compared to the rest ones, as it serves as an introduction in the profile of Travel Law.

First of all, it highlights the existence and the characteristics of this branch, with a special reference to the conceptual question of "travel industry".

It also analyzes the relation between this field of law and Tourism Law.

The second part, like the third one, deals with the content of normativity on journeys, examining passengers' rights.

At first, it takes an approach to the question of existence of a general right to transport.

In addition, it focuses on the Bill of Rights of air passengers in the EU legal order, which consists in Regulation (EC) No 261/2004.

Besides, it refers to another text of the same context, Regulation (EC) No 1107/2006, which goes further with air travelers' rights.

Last but not least, it deals with passengers' guarantees in virtue of Directive (EU) 2015/2302 on the specific phenomenon of package travel.

In the framework of the third part, which correlates the main scope of the paper with sharing economy, there is an overview of the tourism sector, fitting in well with this economic model.

Afterwards, there is an analysis of sharing economy on tourist information, particularly as for the new trend of free tours.

After the completion of the third part, some critical final remarks follow, mainly in correlation to the paper hypothesis.

## **AN INTRODUCTION TO THE PROFILE OF TRAVEL LAW**

*The profile of Travel Law with emphasis on "travel industry"*

Travel Law is a self-existent field of law, focusing particularly on the set of rights and obligations of the contracting parties in the transport sector. It covers a great variety of aspects and institutions of travelling process, such as travel agencies, tour operations, timeshare, the regulation and licensing of travel industry.

It is notable that "travel industry" is a controversial term, which is rather frequent but inaccurate. Indeed, there is no industry (manufacture) on the matter but delivery of services, consisting mainly in transport or accommodation. However, this term is endowed with a great tradition, as it emerged in the century of the Father of Science Fiction. More precisely, in 1884 Josef Stradner published a study, in which there was a first definition of tourism. His approach to this phenomenon conceived it as "the industry of travels". If tourism was connected by the doctrine with the travel subsector of economy very soon, six decades later travel industry was transformed from a theory into constitutional norm, for the first time. The initial version of article 117 of the 1947 Constitution of Italian Republic consecrated "tourism and hotel industry" as a field of competence of Regions against the State. The irony of history is that the so-called "hotel industry" was not an authentic form of industry but constituted the unique case of "industry" which was explicitly recognized in the Constitution. Anyway, through the 2001 amendment, the reference to the set "tourism and hotel industry" was deleted. To date, no political volunteer to make a reference to hotel industry (or travel industry) has emerged, as noticed in the framework of the 2016 amendment process. In the meanwhile, the guarantee of tourism has been explicitly incorporated into very few Spanish-language Constitutions (Spain, Colombia and mainly Venezuela) but no reference to "industry" has been made on the matter. So, there is a decline in the concept of industry without being replaced by the human right to hospitality whilst hospitality has a marginal position in the entire legal system, namely not only with reference to tourism.

Anyway, hospitality is not just an organic or legal concept but in general whether the conditions in a society are hospitable to receive visitors. For instance, according to a research among tourists from Greece and Portugal, the experience of economic crisis and the salience of economic and political hardships mitigated their intentions to travel to destinations with similar problems. These factors had no effect on Israelis, who have not experienced such problems in their country. Frequent terrorist incidents diminished the intentions of Greek tourists to travel to destinations marked by terrorism,

such as Israel. In conclusion, different factors affect tourists' travel-related decisions in each of these three countries (Shahrabani et al., 2020).

Besides, Travel Law has got various subdisciplines being relevant to ad hoc legal regimes. For instance, it comprises Cruise Law as well as Air Law, which has gained a very extended international academic interest.

Nevertheless, Law on Civil Aviation has been investigated in a limited way by the Greek doctrine, to date. This subject, which is taught on an ordinary basis in some tertiary schools, is supported not only by superior education foundations but also by journals, such as the official review of Military Aviation, called "Aeroporiki Epitheorisi", which has been awarded by the Academy of Athens (Maniatis, 2014).

Another discipline of Travel Law consists in Hotel Law, exemplified by the timeshare directive 2008/122/EC, which replaced the timeshare directive of 1994. The aim of the new normativity is to create a simplified and coherent framework for the regulation of timeshare and long-term holiday products, as well as exchange and resale.

#### *A Conceptual Approach to Travel Law compared to Tourism Law*

The term "Travel Law" is not as common as the term "Tourism Law", which is considered as the mainstreaming one as for normativity on passengers. In spite of the similitude of these expressions, it is not about synonyms, given that Tourism Law refers to regulations on the entire phenomenon of tourism sector, including entrepreneurship. It comprises normativity on travels, but it also regulates hotels and other enterprises of this sector. In other words, Travel Law in its narrow sense consists in regulations on the travelling process whilst in a wider sense is also associated to other aspects of traveller's consumption, such as accommodation, information by a guide etc.

However, the relevance between tourism and travel is intrinsically high, already in etymological terms. The word "travel" is mainly destined to declare a leisure activity whilst the comparable word "journey" is oriented above all to a trip for business reasons. As far as the word "trip" is concerned, it has an intermediary function, being available to declare either leisure or professional movements. In a similar way, Travel Law and Transport Law are not fully synonym terms, given that Transport Law is oriented to the entire phenomenon of transports, including transports of goods. In this conceptual framework, Travel Law could be held as a branch of intermediary position, between the general branch of Transport Law and the specific field of Tourism Law.

The normativity on tourism regulates basically accommodation and transport for tourists but also the rest categories of services available for this category of consumers, such as guidance etc. However, it is notable that tourism has a heterogeneous nature, given that its services principally are not destined uniquely to tourists but also to other consumers, exemplified mainly by visitors. It results that

Tourism Law and Travel Law constitute near synonym terms whilst there is an overdose of the first one against the second one. This tendency is present even in academic programs, given that the discipline of Travel Law is rarely taught, as a separate course.

Tourism Law is a self-existent field of law but has not evolved into autonomous branch, in contrast to a few traditional branches, such as Civil Law, Commercial Law, Public Law and Criminal Law. The autonomy of a field means full independence, particularly as for practical matters, such as interpretation. An autonomous branch is self-sufficient in case of legal interpretation, namely it makes use of its own conceptual schemes and theories. In a similar way, Travel Law is not autonomous, let alone the fact that it has a more limited tradition in terms of elaboration and teaching, compared to Tourism Law, as already signalized.

Tourism Law is promoted particularly through its osmosis with the phenomenon of air transports (Maniatis, 2016). For instance, the technological development has led to a significant contestation of the concept of tourism. This is true particularly in the matter of the time parameter of travels, which has been used by World Tourism Organization. Given that the space of 24 hours implicates an overnight stay, it has been regarded as the necessary time to characterize a trip as a tourist's movement. Nevertheless, it is signalized that this approach is due to merely statistical reasons. Nowadays, the duration of the stay at the tourism destination does not affect the character of this movement because the means of transport (plane, highspeed train etc.) as well as the construction of tunnels, bridges and underwater tunnels (e.g. the Channel Tunnel, the Oresund Bridge) enable the tourist to leave his residence, visit a tourism destination in another country and return to his residence in a period not superior to 24 hours (Mylonopoulos, 2011). It is also to point out that this remark comes from the legal doctrine and so highlights the need for jurists' academic support in the research on tourism, which deserves being transdisciplinary rather than multidisciplinary. Besides, it is notable that there are various approaches to the question of the existence or emergence of the so-called "science of tourism".

## **PASSENGERS' RIGHTS**

### *Is There a Right to Transport?*

Not only does Travel Law exist as a self-existent discipline but proves to be successful in practice. It is endowed with a separate guarantee in favour of private individuals, the right to transport. The French Transports Code explicitly recognizes this guarantee, as follows, in article L1111-2:

*" The progressive implementation of the right to mobility allows the user to travel under reasonable conditions of access, quality, price and cost for the community, mainly by the use of a means of transport open to the public".*

However, the legal achievement consisting in the recognition of the universal right to mobility is not exempted from criticism (Le Monde, 2018). In 2018 in France one in two people in integration had already refused a job or a training project due to transport reasons. The average annual budget of French people for mobility, consisting in 5.000 euros, was increasing. It placed a part of the populations, in particular those dependent on private cars, in a vulnerable situation. The right to mobility above all should be guaranteed through a relevant network of the territory with "mobility platforms", as it already happened in some cities and places in France and elsewhere.

Besides, in the People's Republic of China, with reference to the legal framework on consumers' protection, some air transporters try to take revenge against some customers exercising their rights by placing those activists in a blacklist (Bounelas, 2016). The involved companies have adopted this practice with a double objective. On the one hand, they punish the disobedient passengers with the pretext of their aggressive conduct. On the other hand, they set an example for others, who would hesitate to claim their rights. It is also notable that in China a law professor was punished because he made a course on the phenomenon of Constitutionalism. More precisely, in 2013 Doctor Zhang Zuezhong was fired for teaching constitutionalism, which is intrinsically associated to the recognition and protection of human rights. Through this notion, he emphasized the interest of having a Constitution as a basis and limitation of power (Peters, 2018).

*Air Passengers' Rights in virtue of Regulation (EC) No 261/2004: the Pendulum Between the Case-law "Sturgeon" and the Case-law "Aegean"*

Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004, establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91, constitutes the current normativity in the matter of indemnification for air passengers in the EU legal order, in spite of the fact there was an attempt to modify it.

This legislative act foresees inter alia the passengers' rights in case that a flight is in delay. According to article 6, when an operating air carrier reasonably expects a flight to be delayed beyond its scheduled time of departure:

- (a) for two hours or more in the case of flights of 1500 kilometers or less; or
  - (b) for three hours or more in the case of all intra-Community flights of more than 1500 kilometers and of all other flights between 1500 and 3500 kilometers; or
  - (c) for four hours or more in the case of all flights not falling under (a) or (b),
- passengers shall be offered by the operating air carrier:

(i) the assistance specified in Article 9(1)(a) and 9(2). This aspect of the right to care consists in free of charge meals and refreshments in a reasonable relation to the waiting time and free of charge two telephone calls, telex or fax messages, or e-mails.

(ii) when the reasonably expected time of departure is at least the day after the time of departure previously announced, the assistance specified in Article 9(1)(b), namely free of charge hotel accommodation, and in Article 9(1)(c), having to do with free of charge transport between the airport and place of accommodation (hotel or other).

(iii) when the delay is at least five hours, the assistance specified in Article 8(1)(a), consisting in reimbursement within 7 days of the full cost of the ticket at the price at which it was bought, for the part or parts of the journey not made, and for the part or parts already made if the flight is no longer serving any purpose in relation to the passenger's original travel plan, together with, when relevant, a return flight to the first point of departure, at the earliest opportunity.

To sum up, this Bill of rights includes the following guarantees:

1. The right to care,
2. the set of rights to reimbursement and to return to the first point of departure.

These provisions are subject to criticism, both from a technical and a material point of view. On the one hand, the formulation to cite the rights awarded to passengers is not explicit but based on the reference to other articles, specialized per passenger's right. In this way, the interested persons are bothered because there is not a concentrated and fully clear description of their rights, as for the concrete problem they face. According to the doctrine "Form Follows Function", consumers, particularly those deprived of any legal knowledge, should be facilitated in being informed their rights. On the other hand, the text previews no right to compensation whilst it does not omit to foresee compensation of up to 600 euros to passengers who suffer cancelled flights, overbooking or denied boarding. However, the doctrine has remarked that this Regulation has of course become infamous for the escalation of claims being brought for compensation for delayed flights (250 euros, 400 euros or 600 euros) (Parkinson, 2019).

In a similar way, the Court of Justice of the European Union has highlighted the obligation of an air transporter to compensate passengers for a delay. In its *Sturgeon* sentence, of 19<sup>th</sup> November 2009, for the first time it recognized a right to compensation in case of a delay lasting more than 3 hours (Delpech, 2014). This case-law, equalizing the legal position of those passengers to the position of passengers with a cancelled flight in terms of compensation, has been characterized as a "legal bomb". Offering a kind of privileged protection to passengers' interests at the expense of financial interests of

the air companies involved, European judges initiated a jurisprudential line that has caused a great dislike to those enterprises and has upgraded the dynamic of lawyers' profession.

Nevertheless, in the comparable case "HQ, IP & JO v Aegean Airlines SA (C-163/18)", known as the "Aegean case", the Regulation on the matter was not interpreted widely (creatively even) and as a matter of fact, the airline involved was the winner. This case refers to the relationship between EU directives 90/314 and 2015/2302 on Package Travel and this text, which specifically excludes airlines' obligations to refund air fares to passengers, as required under Article 8(1)(a), where that flight forms part of a package holiday, as below:

Article 8(2). Paragraph 1(a) shall also apply to passengers whose flights form part of a package, *except for the right to reimbursement where such right arises under Directive 90/314/EEC.*

The claimants were met with an unfortunate set of circumstances, i.e. the tour operator (Hellas Travel BV, based in Holland) had become insolvent (in fact, this insolvency is what led to Aegean cancelling the flight to start with) (Parkinson, 2019). The Court of Justice of European Union, answering on questions upon a request of the District Court of Noord-Nederland for a preliminary ruling under article 267 of the TFEU, formulated the following position:

*"In the light of the foregoing considerations, the answer to the questions referred is that Article 8(2) of Regulation No 261/2004 must be interpreted as meaning that a passenger who, under Directive 90/314, has the right to hold his tour organiser liable for reimbursement of the cost of his air ticket, can no longer claim reimbursement of the cost of that ticket from the air carrier, on the basis of that regulation, even where the tour organizer is financially capable of reimbursing the cost of the ticket and has not taken any measures to guarantee such reimbursement".*

The European tribunal's answer is not to provide redress against the airline but, instead, for passengers to obtain a refund by applying in the UK's Air Travel Trust or the equivalent thereof in other EU member states. Failing that, recovery can be made against the State, in accordance with decisions *Francovich* (C-6-89 and C-9/90), *Rechberger and Others* (C-140/97) as well as *Baradics and Others* (C-430/13). However, one has to question how desirable it would be to make such a claim, especially as for a nominal sum. As to viability, various questions may emerge in EU countries, such as lengthy delays, the lack of recovery of legal costs or even corruption (Parkinson, 2019).

Anyway, air travellers seem to ignore their rights, according to various data, such as those of a primary survey among passengers, which was held in the "Makedonia" Airport of Thessaloniki, in January 2016 (Bounelas, 2016). Its target group consisted in passengers waiting for their flight, towards another Greek destination or abroad. The answers of those private individuals highlight the lack of knowledge on the law of air passengers' rights. The notion of a financial compensation for the damage suffered is inconceivable, in spite of the fact that in reality it constitutes a fundamental means

for the protection of travellers' legal interests. Besides, the average consumer has the idea that for inconvenient facts that take place in the air journeys the involved companies have no responsibility on almost all occasions, given that those facts are attributed to the weather, technicians, the system, strikers or sometimes even to the passenger himself. Just on the contrary, the EU competent institutions, including the judicial one, consider that the air transporter can almost always exert control on everything and for this reason they limit down drastically the cases of exemption from responsibility. These findings tie in with the position of claims management company "AirHelp", according to which 87% of air passengers do not know their rights or when they are eligible for compensation.

In February 2020, it was announced that EU authorities were planning to re-examine the Regulation 261/2004 "at the expense of consumers" and to the benefit of airline companies, according to the Federation of German Consumer Organizations (VZBV) and the Association of Passenger Rights Advocates (APRA) (GTP editing teams, 2020). Upon these rights groups, passengers would no longer be compensated for delays of three hours. Instead, flyers would be entitled to claim compensation when delays exceed five hours for long-haul flights of over 3,500 kilometers. For flights exceeding 6,000 kilometers in distance, eligibility for compensation would apply to nine-hour delays and over. Consumer rights advocates expected the delay limit to increase to 12 hours. A development like that would result in significantly reducing the number of cases seeking compensation. According to estimates of the "AirHelp", almost 80% could lose their rights. It is quite indicative that in 2018, some 16,5 million EU passengers suffered delays.

*Passengers' Rights in Virtue of Regulation (EC) No 1107/2006*

Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5 July 2006, concerning the rights of disabled persons and persons with reduced mobility when travelling by air, is relevant to articles 21 par. 1 and 26 of the Charter of Fundamental Rights of the European Union as well as articles of European Constitutions, such as article 21 par. 3 of the Greek Constitution (Maniatis, 2016).

In virtue of article 3 of this Regulation, an air carrier or its agent or a tour operator shall not refuse, on the grounds of disability or of reduced mobility to accept reservation for a flight departing from or arriving at an airport to which this Regulation applies as well as to embark a disabled person or a person with reduced mobility at such an airport, provided that the person concerned has a valid ticket and reservation.

However, this rule is not exempted from derogations, which are previewed in article 4, for reasons of safety or technical ones. Besides, article 12 foresees that where wheelchairs or other mobility equipment or assistive devices are lost or damaged whilst being handled at the airport or transported

on board aircraft, the passenger to whom the equipment belongs shall be compensated, in accordance with rules of international, Community and national law.

*Passengers' Rights in Virtue of Directive (EU) 2015/2302*

EU for the first time adopted a legislation on package travel through the aforementioned directive 90/314/EEC. Package travel was conceived as a combination of two different types of services, such as transport and accommodation. That pioneer directive was transposed in the Greek legal order in delay, let alone not in a creative way, through the adoption of presidential decree 339/1996. Due to its various defects, it was repealed by the above mentioned directive (EU) 2015/2302 of the European Parliament and of the Council of 25 November 2015 on package travel and linked travel arrangements, amending Regulation (EC) No 2006/2004 and Directive 2011/83/EU of the European Parliament and of the Council. According to Whereas (2), the new directive aims to adapt the scope of protection to take account of those developments, to enhance transparency, and to increase legal certainty for travellers and traders. The doctrine has commented that it is about a very consumerist directive (Feliu Álvarez de Sotomayor, 2018). More precisely, this text is protectionist of the party which is considered as weaker from a legal point of view, exemplified by consumers and retailers. To avoid confusion with the definition of the term "consumer" used in other EU legislation, consumers should be referred to as "travellers". This technical choice of the legislator enhances the separate profile of Travel Law against other similar branches, such as Consumer Law, Tourism Law and Transport Law.

The current directive constitutes an important step forward, representing the current era of 4G fundamental rights, which could be considered to have begun in 1992, so after the adoption of directive 90/314. The new text results text inter alia in saving money for traders by getting rid of their obligation to give a brochure in physical form to their clients. This simplification of commercial process proves to be environmentally friendly. The consumer protection ties well with the environmental policy, particularly on the basis of the principle of environmental integration, which since 1997 is a requirement under the EC treaty. The importance of this principle is reaffirmed in the Sixth Environment Action Program whilst transport has constituted one of the areas, in which integration is officially applicable.

Among the guarantees consecrated by the directive, there is the right of travellers that cannot return from their package holidays on time, for instance in case of natural disasters, to be granted accommodation for up to three nights. Besides, additional nights are covered in line with the relevant passenger rights regulations.

## SHARING ECONOMY IN TOURISM SECTOR

### *Tourism Sector, the Emblematic Field of Sharing Economy*

At the end of the first decade of the current century, a new form of economic relations emerged. It is about collaborative economy or sharing economy, which is a marketplace where consumers rely on each other instead of large companies to meet their needs. This peer to peer system is based on specialized digital platforms. The sector of travel and tourism is particularly linked with this new trend, exemplified by Airbnb in the matter of short-term lease of flats. It is to put the stress on the fact that sometimes innovation related to collaborative economy emerged for needs of survival. More precisely, the majority of ideas which were transformed into successful startups were services created to meet a latent need (Rodríguez, 2015).

P2P services have experienced exponential growth, due to the fact that the platforms that have carried out them cover a niche that has not been covered until now, either by price or by experience. Those observations are valid particularly as far as tourism infrastructure is concerned. For instance, the emblematic enterprise "Airbnb" emerged to meet basic needs. Its creators offered an inflatable mattress in their house for rent and added breakfast ("Air Bed and Breakfast") to be able to pay the monthly rent for the apartment where they lived. In 2015, it was valued at 10 billion euros and had a number of rooms – without owning any – similar to the largest hotel company in the world. From then and on, national and subnational legislation on short-term lease contracts has emerged, in a more or less successful way. This regulatory role of the public power ensures the tax public interest and promotes the tourists' right to a safe and decent accommodation, in spite of some legal problems relevant to unconstitutional rules on the matter.

Furthermore, Airbnb has served as a role model for other forms of entrepreneurship in the framework of collaborative economy, especially in the tourism market. In a parallel way, Uber was originally founded as Ubercab, in 2009, and is nowadays a huge American multinational ride-hailing company, offering various services, such as inter alia P2P ridesharing.

It is notable that ridesharing practice is no innovation of the sharing economy era. This practice between co-workers or neighbors dates back from the 1970s and was elaborated and facilitated by the recent technological advances increasing trust between strangers (Guyader, 2018). Nowadays, BlaBlaCar, a French online marketplace for carpooling which was founded in 2006, exemplifies the way of travelling together between cities and sharing the cost of the journey. Its members trust each other almost as much as friends and family members do. However, many of them describe feeling cheated by, and "at war" with this company for making an ad hoc practice more commercial and less altruistic.

*The Human Right to Be a Guide: a Deregulated Profession*

Since a lot of time, the doctrine has signaled that it is worth consecrating “new” specific rights, such as the right to travel information on the destination in flight (Maniatis, 2016). If this right seems to be totally marginal, there is an important tendency to promote tourism destinations by the air transporters in their free magazines, which passengers can not only read in flight but also take at home. In a complementary way, some air companies offer electronic information in passenger’s monitor during the trip. The trend of client’s magazine may be correlated to a very long tradition consisting in guidebooks or travel books.

It is notable that the tourist guide’s profession has become an official job, regulated by specialized national legislation since almost a century. This is valid for Spain, whose first legal reference dates from 1928. Travel guide has a remarkable polymorphism, consisting in human beings and books, and is comparable to the status of fashion models, which emerged in the nineteenth century in France, whilst mannequins, in form of wooden dolls, were already in use some centuries earlier.

A similar trend is related to tourist information, consisting in free tours. These tours could be held as free, for the following reasons:

1. *The free character of the relation between guidance parts and of the guide’s employment*

No labor relation is produced between the guide and the guided persons, which may quit from the guiding tour anytime. Furthermore, the guide is, as a general rule, a freelance provider, not an employee of an enterprise endowed with a relevant digital platform, although he usually has a professional relation with a company of that category, such as Free Touring, Strawberry tours, Freetour.com etc. (Maniatis, 2020). In some cases, companies are entitled to a commission per guided person. Besides, guides and other members of local societies make use of new digital platforms to offer free tours and other tourist services directly to the public. This is the case of enterprises having the legal form of association, such as Cuéntame Toledo as well as Free Tour Madrid, being the owner of the platform “Madrid a Pie”. In the framework of this non-profit legal scheme, guides are employees who are paid directly by the guided persons, in case of free tours, and from their employer, in case of paid tours. It is to pay special attention to the fact that the type of legal person of civil law “association” seems to be favorable not only for guides, who take advantage of Labor Law rights, but also for the legal person itself, which is fully exempted from fiscal obligations. As associations are regarded as mainstreaming examples of social economy, they have the privilege of tax exemption and so they are encouraged to get involved into competition against the classical business schemes, such as companies of Commercial Law.

2. *The non-payable character of the delivery of services (tour gratis)*

The walking tour lasts from 1 to 3 hours (usually 2 hours) and is not exactly gratis but constitutes a profession on behalf of the guide. Basically, it may be held gratis with some eventual exceptions of rather minor importance, such as:

- A commission for making a reservation through the digital platform involved, although GuruWalk, a Spanish startup which would like to become recognizable as a brand name like Airbnb in the matter of accommodation, soon ended this economic burden for all free tour "walkers",
- In case of persons who would like to participate in a group that has already covered the maximum number of participants, as set by the platform business.

The members of the guided group have the right (not also the obligation) to pay a sum of money, as a tip, just at the end of the tour, in the framework of a donation contract. The guide gets money directly from guided persons as long as they are satisfied from the result of the tour. For this reason, there is the informal denomination in Spanish "taquilla inversa" (reverse ticket office). So, guide's remuneration depends on the degree of satisfaction but also on other factors, such as the financial situation of the guided person, his culture for gratuities etc.

Free tours constitute a pioneer alternative to offer knowledge on a city to visitors, particularly to (foreign) tourists but also to residents. Sightseeing in this way is a real innovation, particularly because it refers mainly to individuals who would not pay for tourist information. So, not only has a new service emerged but also a new target group.

It is also to put the stress on the fact that this very popular delivery of services worldwide has led in a few places, such as the Autonomous Community of La Rioja (not the entire State of Spain), to liberalization of guide's profession. The Autonomous Community of Madrid fully liberalized this activity in virtue of Law 8/2009, in the context of adaptation to directive 2006/123/EC of the European Parliament and of the Council of 12 December 2006 on services in the internal market. Nevertheless, it is to clarify that the famous directive Bolkestein (or the services directive) did not impose the abolition of the regulated character of this job.

Due to this audacious political initiative of the most important Spanish Autonomous Community, there have been two forms to offer tourist information. On the one hand, the activity of "tourist guide" has been liberalized to such a pitch that anyone is enabled to enact this role, as a work or as a hobby. It results an authentic guarantee, consisting in the human right to guide either a private individual or a group of persons. This liberalization has a global character, including the classical qualification of foreign languages. It puts an end to the limitation relevant to language being used in the framework of tourist information whilst, as a general rule, in comparative law qualified guides are enabled to guide uniquely in the accredited language or through the service of an interpreter without

prejudice to the professional interests of the guides qualified in the required language. For instance, according to article 3 par. 4 of decree 7/2020 of the Autonomous Community of Castilla-La Mancha, the work of tourist information must be carried out by a licensed tour guide in the group's language and only in the absence of a guide with that qualification, the work will be carried out by a licensed guide, accompanied by a translator. Alternatively, the guide may count on the services of a second guide qualified for the translation tasks. The freedom of tourist information implicates a full autonomy of the provider, against classical "regulated professions" (namely being subject to public licensing for their exercise), like the jobs of a licensed tourist guide and an accredited translator. In this way, both beginners in the tourism sector and professionals, such as tour leaders, are facilitated.

On the other hand, there is the new figure called "official tourist guide", consisted in an accredited professional, as defined by article 2 of decree 18/2017 of the Government Council. This property, called through this neologism, constitutes a quality seal, at the same time that said certification allows access to professional training and improvement actions, as well as benefiting from the promotion actions carried out by the Autonomous Community of Madrid, according to article 5 of this decree. With this text, the multiple and constant requests for regulation by the accredited guides were answered. Those professionals considered that there was a situation of deregulation of their job, a clear intrusion, in addition to a comparative grievance (Gutiérrez Duarte et al., 2020).

To sum up, unofficial guides have been enabled to accomplish this mission, let alone explicitly with the title of "tourist guide", as for at least the Autonomous Community of Madrid. For instance, lawyers enact the role of free tour guide as a hobby in the Spanish capital, gaining a relatively limited amount of money. So, certified tour guides have acquired various competitors but some of them enact the free tour role, to enhance their income. Anyway, the entrepreneurial success is double as long as there have been duplicated the types not only of guides (with the legitimization of informal guide's business) but also of guided persons (with the emergence of a new target group, through free tours).

## **CONCLUSION: "SHARING ECONOMY, SHARING RIGHTS"**

The paper hypothesis has been confirmed, although it is to clarify that collaborative economy constitutes only one of the factors having an impact on the content of Travel Law. For instance, regulations on digital platforms, such as Airbnb, have been adopted and, as a general rule, have been gradually evolved into a liberal regime on the matter, contesting the hotelier's traditional role. However, the most important revolution has occurred in another field of sharing economy, which refers to tourist information. A one-century regulated profession of private individuals has been transformed into a sign of quality whilst a new right has emerged, consisting in the freedom to guide.

This development is not attributed uniquely to sharing economy but mainly to the generic new wave against the closed professions, exemplified by the services directive.

Prima facie, sharing economy has contributed to the emergence of the dynamic phenomenon of sharing rights between unequal social groups, such as official guides and the rest society. Nevertheless, as it happened in the Autonomous Community of Madrid 8 years later, there is an informal but very intense tendency, in the framework of comparative law, to establish a hierarchy of legal conditions between the aforementioned groups, highlighting the superiority of accredited guides. In the current status of normativity in that Autonomous Community, official guides have acquired the authentic "privilege" to be a guide, let alone with the title "official tourist guide" against the universal "right" (economic freedom) to be a "tourist guide". It is about a very intense controversy, which is still actual, whilst the formal representative organization of official guides of Spain has made use of a campaign based on the neologism "turismofilia", namely hospitality. Anyway, the remark on the expansion of rights (either traditional or new ones) due to sharing economy is valid, in general, so the motto "Sharing economy, sharing rights" could be produced.

As already signalized, States and legislators have to cope with new rights and professional roles, such as the rights to be a guide particularly in free tours and to enact the role of quasi hotelier, through digital platforms, such as GuruWalk and Airbnb respectively. However, Travel Law is produced more and more by private individuals to enhance their income and ambitious start-up companies.

Besides, Regulation 261/2004 constitutes one of the most successful legislative acts on compensation of flight passengers in comparative law, particularly on account of the relevant right consecrated by jurisprudence. We consider that this pioneer right should not be deconstructed through an eventual legislative initiative, such as the recent European one, but it deserves being transformed into positive law. In general, Travel Law and Tourism Law could acquire a more anthropocentric and inclusive dimension whilst sharing economy is of major importance on the matter.

Furthermore, the constitutional right to tourism is marginal, if not inexistent. Its specific version consists in the right to be guided and is combined with the newly established freedom to guide. So, it is about a global right to tourist information, as the term "information" is conceived in both passive and active senses.

It is also notable that there has been the phenomenon of reversing the role of the official tourist guide, compared to persons, such as the tourist and the informal guide, for example on the very competitive case of free tours, and to things, such as the travel guides (books) (Maniatis et al., 2020). This phenomenon happens on international scale whilst another reversal has already been produced, at a national level. To date, literature on tourism has almost thoroughly ignored the fact which could be marked as prophetic of the new developments in the tourism sector. In Greek, the tourist is called

either “tourist” or “periigitis”, a word that means a person who visits destinations for leisure purposes and in ancient Greek was used to denote the guide against “teoros” (tourist) and, in a limited way, the authors writing down their knowledge which was acquired through their travels.

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The current study started with a reference to the famous novelist Jules Verne, as the Father of Science Fiction relevant to travels. Fiction continues to be something valuable but new rights should be recognized and be incorporated into social reality. For instance, the right to happiness or to serenity, whose right to serene vacations would be one of its versions, has been unrecognizable by a part of the doctrine. Moreover, Italian jurisprudence has considered the right to happiness “totally imaginary” (Ferro, 2014). However, the right to pursuit of happiness constitutes a classical civil right, of the first generation of fundamental rights in the history of humanity, which could be regarded as existent (Maniatis, 2017). At least as for the similar right to serenity, this guarantee is based on the innovative article 46 (ex article 47) of the Italian Tourism Code on the compensation of “damage from ruined vacation”. The right to serene vacation, let alone the generic right to vacation, is no science fiction...

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## UNVEILING THE VEIL OF SPORTS LAW

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### ABSTRACT

Sports Law constitutes a separate field of law, which is covered by a veil of mystery with various peculiarities. It is connected with the phenomenon of an intensive tendency of acquaintance of social groups with sport context. This tendency is facilitated by the fact that Sports Law is explicitly considered to include even norms that are not specifically applicable to athletic institutions. In civil law countries, there is also the tendency of publication, in the sense of conversion of law into Public Law (not only Administrative Law but also Constitutional Law). Besides, the question of recognition of neighboring rights to athletes is not inexistent but remains marginal whilst a gradual upgrade of their rights has been noticed, the last decades. Last but not least, the lawyer's figure is comparable and relevant to many of these aspects of Sports Law.

*Keywords: Lawyer; Neighboring / related rights; Publication (Conversion of law into Public Law); Sports Law; Theory on acquaintance of social groups with sport context*

### INTRODUCTION: THE RULES OF THE GAME

Sport seems to have been a leisure activity for everybody since antiquity. As sport games were created, that activity by nature was subject to some rules. At a first level, players themselves and, later, at a second level, the official authorities have enacted the crucial role of the "legislator" on the matter. The current paper aims at highlighting unnoticed or marginal aspects of the content and application of Sports Law through the comparative context in order to promote the international academic research on the matter.

First of all, it sheds light to the phenomenon of acquaintance of social groups with the sport context. Furthermore, it examines the tendency of conversion of law into Public Law, at least as far as civil law countries are concerned.

Then, it goes on with various aspects of the rights of athletes, mainly the professional ones.

At the end, it proceeds to a global approach, reaching to some critical remarks on Sports Law.

## **THE THEORY ON ACQUAINTANCE OF SOCIAL GROUPS WITH THE SPORT CONTEXT**

Sports Law is not merely a kind of legislation, being made of heteroclitic rules localized in various forms of legislative acts. It is about a specific branch, including some norms on the social phenomenon of athletic activity (Maniatis, 2017). However, this field is not based uniquely on these special rules but also has to do with a set of norms of “common law”, namely destined to be applicable in a wider context, such as the relevant to labour relations.

For instance, a lawyer representing an organization specialized in sports has to make use of lease law, as long as his client wants to exploit a building through this form of contract. The doctrine does not omit to signalize that Sports Law, in a wide sense, has to do even with general normativity, as it happens to be applicable in case of athletes and institutions of the athletic market (Malatos, 2010). This phenomenon may appear self-understandable, but it is unusual to clarify it explicitly, as far as other branches are concerned. So, it results that Sports Law has a tendency to expand its field or, more precisely, to be adaptable to a wider normativity, as long as no ad hoc rules are adopted. Obviously, this tendency promotes the interests of the involved factors, such as lawyers that may invoke their experience in contracting matters of their clients as a professional experience in Sports Law.

Besides, it is notable that the opening of a personal career to this field, whose applicability is rather limited in social practice, may be held quite by chance. In the Greek legal order, the lawyer with a permanent salary command of the legal person of a municipality serves *ipso iure* the rest legal persons under public law, which are supervised by the municipality. So, he has to cope with the protection of legal interests of the municipal athletic carrier. It results that the expansion of application of this branch is facilitated by regulations like this. We suggest this phenomenon be called “acquaintance” of private individuals and social groups to the world of sports (or sport context). In this matter, it is quite eloquent the term being in use in the UK. This State makes a systematic use of the term “soccer” as for the most popular sport, football. According to an approach, this word refers to the concept of social ceremony, principally destined to be held on Sunday, with the massive attendance of fans in sport arenas.

## **THE THEORY ON “PUBLICATION” OF SPORTS LAW IN CIVIL LAW COUNTRIES**

*The case of Administrative Law and Public Administration*

Sports Law has traditionally a private origin and very rarely a State one whilst the scope of this branch consists in a product of society. On the one hand, its main characteristic is that its scope is ruled by private normativity. It has a great history and consists in production coming from the interested social

groups. It is about a branch marked by internalization of more or less wide groups or of the entire society. On the other hand, it is subject to the phenomenon which is called in Spanish “publicación”, namely “publication”, in the sense of making something public (producing or enhancing the character of the branch of Public Law). For instance, as far as Spain is concerned, the publication of normativity on sports constitutes a real fact. There are some authors that back up the opinion that Sports Law, being an autonomous and separate normative framework, is practically non-existent in this country, not enjoying its own individuality.

The doctrine signalizes that penetration of Administrative Law can be extended to other areas and is a consequence of the legislative “hypertrophy” to which Spanish society is subject (Valdés Escalona, 2014). Interventionism of Public Administration and subsequently penetration of both Administrative Law and Public Powers in the sector of athletic events are so extended that hardly remains any entity of fully private character, for self-organization and self-regulation of sports. This remark is valid in spite of the fact that Barcelona Football Club has the international peculiarity to be a company based on the people, far away from the classical scheme of an enterprise owned by a private legal or natural person, as a shareholder. In other words, unlike many other football clubs, the supporters own and operate Barcelona.

The described supremacy of the public over the private is not located in other countries, such as the USA, the UK and Germany, in which athletic activities have an essentially private nature. As for Greece, this country being endowed with a relatively very small surface but a great sporting history, makes use of a specific normativity, like Spain does. This remark is also valid for other mainstreaming European countries, such as France, Italy, Portugal etc. (Malatos, 2010).

Besides, it is notable that Greece not only exemplifies well the tendency of publication of Sports Law in many civil law countries against “common law” ones but in some crucial cases it runs the risk to downgrade the other mainstreaming tendency, consisting in the acquaintance of social groups with various aspects of athletic events. Focusing once again on lawyers’ community, it is to signalize that the Greek State has recently modified its legislation on Public Administration being competent against violence in sport arenas.

In the framework of publication of Sports Law, the political volunteer was to adopt stricter legislation against hooliganism and eventually to other similar forms of deviant behavior related to sports, particularly to football. To accomplish this mission, the State cleared out freelance professionals, such as lawyers, from the competent public organs by replacing them by judges. On the one hand, the emblematic figure of social reality of Sports Law, as already described, was marginalized. Advocates are no more enabled to enact the role of decision-maker, being limited to their traditional mission to cope with affairs of their clients in administrative procedures like these. On the other hand,

professional judges have acquired a double role, including administrative duties, which normally are performed by civil servants or freelance professionals, such as lawyers, and not by members of the judicial power. This tendency perhaps could be held as an opening to judges, on the basis of the theory of the acquaintance of social groups with sport context. However, hardly could this opinion be acceptable, as judges do not constitute a *stricto sensu* social group but a classical State Power against lawyers, who are freelance professionals, essentially making part of the society, at least in terms of economy. Even if lawyers are conceived as “public servants”, being auxiliary organs of Justice, it is obvious that their substitution by judges implicates an intensification of publication of the State mechanism on the matter. The polity sacrifices the prestige of a mainstreaming scientific job, such as the lawyer’s one, to highlight its deliberativeness to preserve social peace and public security against hooligans.

Anyway, the phenomenon of expansion of Public Law in traditional areas of Private Law is typical of modernization of normativity. For instance, the freedom of contracting proves to be more and more limited, to such a pitch that it has produced forms of obligatory contracts. This is the case of Collective Labor Agreements (CLA) or Collective Bargaining Agreements (CBA), which, just like the contract-law, are applicable even to persons that have not been contracting parties in the process of their conclusion (Barragán, 1965). So, Labor Law is no more a merely normativity of Private Law but a complex, *sui generis*, autonomous branch.

#### *The case of Constitutional Law*

As far as publication of Sports Law is concerned, we have the opinion that this phenomenon should not be conceived uniquely in the framework of Administrative Law, whose Specific Part includes normativity on sport Administration. Publication should be understood as an opening not only to Administrative Law and subsequently to Public Administration but also to Constitutional Law.

On the one hand, sport found at last a position in a Constitution just in 1936, in form not of a right to sport but of the generic right to social organizations (athletic associations). The next generation of humanity made the step forward, by recognizing explicitly in Cuban Constitution of 24<sup>th</sup> February 1976 that “*Everybody has the right to physical education, sport and recreation*”. In a similar way, a few days later, the universal right to physical culture and to sport was consecrated in the Portuguese Constitution. The year 1976 proved to be the year of inauguration of the right to sport in general, in comparative and international law. As for the Council of Europe, its formal policy on sports was initiated with the “European Sport for All Charter”, which was launched in 1975 by the European Sports Ministers. This document was officially adopted on 24<sup>th</sup> September 1976. From that date, sport policies in Europe were endowed with a common program, based on the conviction that the values of

sport would contribute to the fulfilment of the ideals of this international organization. It is quite indicative that article 1 foresees that every individual has the right to participate in sport.

The right to sport not only is comparable to another right implicating movement of the human body, such as tourism, but also is parallel to it. Both guarantees were consecrated for the first time worldwide in a Constitution, in the era of the second generation of fundamental rights (1917-1972). The Soviet Constitution was the first to incorporate explicitly the institutional guarantee of sport, as already signalized, whilst the 1947 Constitution of the Italian Republic made an explicit reference to "tourism and hotel industry", which paradoxically was eliminated through the 2001 amendment. Nevertheless, these rights have followed a very opposite tendency, in terms of their further constitutional consecration, worldwide and therefore the right to tourism remains marginal.

The right to sport implicates concrete public policies, being internal of States, to be guaranteed (Pachot Zambrana, 2016). The State in the matter of sport has three types of obligations, consisting in respect, protection and accomplishment (Zitlaly Flores, 2014). These remarks are indicative of the double character of Public Law; Constitutional Law is completed by the other component, consisting in Administrative Law. In a similar way, in Constitutional Law, besides the formal Constitution (including a Bill of Rights), there is also the material Constitution, having to do with fundamental rights and obligations of citizens and other persons. Obviously, the movement of publication has to do with the explicit consecration of the guarantee of sport in Constitutions worldwide and mainly with its regulation in laws. For instance, in the 1980s legal rules were adopted in Greece to promote the phenomenon of mass sporting, so the material Constitution was enriched as far as amateur sporting is concerned.

## **ATHLETES' RIGHTS**

Article 49 of the Treaty on the Functioning of the European Union (formerly Article 43 of the Treaty establishing the European Community) foresees that "*restrictions on the freedom of establishment of nationals of a Member State in the territory of another Member State shall be prohibited. Such prohibitions shall also apply to restrictions on the setting up of agencies, branches of subsidiaries by nationals of any Member State established in the territory of any Member State*". This article has been given wide application by the European Court of Justice, with no sector excluded, covering thus those within member state competence, such as healthcare and taxation (Benyon, 2016). A typical case having to do with lawyers' profession consists in the Gerhard case.

Similar remarks are valid for labor law relations, as it was the case of Bosman ruling (C-415/93). This 1995 jurisprudence of the European Court of Justice concerns freedom of movement for workers, freedom of association and direct effect of article 39 of the Treaty Establishing the European Economic

Community (now article 45 of the Treaty on the Functioning of the European Union). That case had an important effect on the transfers of footballers within EU. Prior to this jurisprudence, clubs in some parts of Europe (but not, for example, in Spain and France) could prevent players from joining a club in another country, even if their contracts had expired.

However, athletes are considered to be deprived of any neighbouring rights, like two other categories of private individuals. It is about mannequins and the participants in TV reality shows (Maniatis, 2018). Mannequins have evolved from wooden dolls to human beings with a tacit role, which may be protected by Labour Law, exemplified by the relevant disposition of French Labour Code, but not by Intellectual Property Law.

In reality, some countries, such as inter alia France, Italy, Mexico, the Netherlands and the USA, have recognized related rights for sport events (Townley, 2019). Besides, European Community, as reflected in its 2007 White Paper on Sport, has been aware of the specificity of sport and that it might be afforded further protection. In the joined cases involving Football Association Premier League versus QC Leisure and Karen Murphy versus Media Protection Services Limited (C-403/08 and C-429/08), the Court of Justice of the European Union acknowledged that *“sports events such as football matches cannot be considered intellectual creations or works and so cannot be protected by copyright.”* It was further noted, however, that the unique and individual character of a sports event can transform it into subject matter worthy of protection.

## **CONCLUSION: UNVEILING THE VEIL OF SPORTS LAW TO UPGRADE HUMAN RIGHTS**

The current paper has ended up to the following findings and critical remarks:

- a. An intense tendency of acquaintance of social groups with sport context (inclusive character of Sports Law)*

Sports Law has a particularly open character to society whilst both legal practitioners and the doctrine highlight and take advantage of it. This inclusive character of this separate branch of law ties in well with the universal, so inclusive, character of the right to sport. Anyway, the explicit constitutional consecration of this right has become a world trend, enhancing the acquaintance of society with sport activities.

- b. Publication of law on sports, particularly in civil law countries*

There is a very intense tendency of publication of normativity on sports, particularly in civil law countries against common law ones. This trend of conversion of law into Public Law, just like the precited tendency of acquaintance with sport context, is well exemplified by the role of freelance lawyers. Publication is not necessarily a negative phenomenon, let alone the fact that it may implicate

an enrichment of human right to sport, either in the formal Constitution or mainly in the material one. For instance, it is to underline the right to be a sport fan, which ties in with the question of confrontation of violence committed in athletic places.

*c. The gradual character of recognition of athletes' rights*

Athletes have gained territory in terms of their legally protected rights, in the last decades, particularly in the EU context, particularly as for the freedom to change an employer, in the framework of Labour Law. Nevertheless, the question of recognition of neighbouring rights remains marginal, though existent in opposition to mannequins' related rights.

To sum up, as signaled by the doctrine (Pachot Zambrana, 2016), normativity on athletes and sport activities have been subject to relatively limited academic elaboration to such a pitch that various aspects of its profile remain relatively unknown or deprived of research in the international context. The time has come to unveil the veil of Sport Law, let alone in favour of human rights...

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## EGYPTIAN MARITIME LAW

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### ABSTRACT

Egypt is endowed with a Maritime Law having a wider impact, particularly due to the Suez Canal, whose transit is open for all vessels according to the relevant 1888 Convention. This member state of the Spitsbergen treaty and of the 1982 United Nations Convention on the Law of the Sea is emblematic of the one-century gradual tendency of liberalization of navigation in areas and zones different from the classical zone of high sea, against the national sovereignty of the coastal State involved (1888-1982). Egypt has exploited in a very extended way the opportunities offered by International Law, by creating optional zones of the Law of the Sea, such as contiguous zone and EEZ, and also by offering the best possible protection to underwater antiquities, as foreseen by the UNESCO Convention on the protection of the underwater cultural heritage. Last but not least, although EastMed is not directly relevant to Egypt, Greece has established a significant, multilevel collaboration with this neighbor country, the last years. Egypt has formed the Eastern Mediterranean Gas Forum, which also includes Greece, Cyprus, Israel, Italy and Jordan, and has signed the agreement on the partial delimitation of EEZ with Greece.

*Keywords: EastMed (Eastern Mediterranean pipeline); Egypt; Greece; Italy; Law of the Sea, Maritime Law; Spitsbergen Treaty (Svalbard); Suez Canal*

### INTRODUCTION: EGYPT

The name "Egypt" has an ancient Greek origin, meaning the country south of the Aegean Sea. This State has fostered significant bonds with the nearby country of Greece. For instance, the Greek people had a port on the Canopic branch of the Nile river, Naucratis or Naukratis. That city, situated 72 kilometres southeast of the open sea and Alexandria, was the first and for a long period of time the unique permanent Greek colony in Egypt. It is also notable that the two neighbours have had violent incidents in their relations. In the battle of Salamis, held on 29 September 480 BC at the straits between Attica and the island of Salamis, Egyptian warships took part on behalf of Persians, given that Egypt belonged to the Persian Empire. Perhaps it is quite indicative of the relations which Egypt and Greece could have, that Egyptians did not take part directly in the violent confrontation, because

they executed orders to block the eventual departure of Greek warships. The battle of Salamis constitutes one of the most significant facts in the world history, which stopped the imperialist expansion of Persians, safeguarded sovereignty of Athenians and their allies of other Greek city-states and protected the so-called "isonomy" of citizens. Isonomy, later called democracy, is the most important invention inherited by ancient Greeks to mankind.

Nowadays, the Arab Republic of Egypt is very big, in both terms of territorial size and population. In February 2020 it exceeded the limit of 100,000,000 inhabitants (Goujon, 2020). Besides, it is endowed with the sixth biggest war navy worldwide and the biggest among the African States.

The current paper aims at introducing to the Egyptian Maritime Law in a wide sense, including the rules of the Law of the Sea.

## **EGYPTIAN MARITIME LAW**

The legal system of Egypt is considered as a civil law system, in the framework of the generic distinction between common law countries and civil law ones. It is based on a well-established system of codified laws (Abdel Wahab, 2019). Egypt's supreme law is its written constitution whilst this country exemplifies the African trend of operation of a Constitutional Tribunal.

The most important legislation on contracts is the Egyptian Civil Code of 1948. As for Maritime Law, the first Egyptian law was issued in 1883, which took many of the items from the French law. It is notable that there is not a single approach to this set of norms, in Comparative Law. For instance, in Italy Mussolini's regime in an authoritarian way established a common Code on maritime transport and aviation. It is about the Navigation Code, published in 1942. Therefore, Navigation Law is defined as the set of rules governing the matter of navigation, be it maritime, internal (exercised on rivers, canals and lakes) or air - understood as a unitary complex of relations pertaining to navigation (Fiale, 1992).

Currently in the Egyptian legal order, Maritime Trade Law No. 8/1990 is applicable, which governs inter alia the marine insurance. This mainstreaming law, in articles 292-301, deals with the maritime danger of collision accidents. The provisions of such articles are identical to the provisions of Brussels Collision Convention, of 1910, to unify the regulation of such collision on both of the national and international levels (Saleh, 2017).

## **EGYPT UPON THE SPITSBERGEN TREATY**

Egypt ratified the Spitsbergen Treaty, which was signed in Paris in 1920, in September 1925 whilst Greece followed, in October of the same year. This treaty foresees a sui generis, unique legal regime on the arctic archipelago of Spitsbergen, now called Svalbard. Although that terra nullius became an

overseas part of the Kingdom of Norway, a limited quasi sovereignty of the rest contracting parties was established, for instance as far as fishery, hunting and mining activities are concerned (Maniatis, 2019). Egypt is endowed with a long tradition in capture fisheries in marine and fresh water whilst in 2013 aquaculture production surpassed capture fishery production. So, this country, which is almost the unique African member state of the Spitsbergen Treaty, could enact an active role in the Svalbard Archipelago (at least in the territorial waters, if not permitted in the Fisheries Protection Zone).

Besides, it is notable that the Spitsbergen treaty consecrates the fundamental right of both ships, put into Svalbard ports, and of private individuals, exemplified by seafarers working in the ships on the matter, to relax. Relaxation is omitted by the English version of the treaty, which is a quite paradoxical matter but goes in with the spirit of the very recent creation of the ILO, consisting in the Maritime Labor Convention (MLC). So, the treaty could be slightly seen as a precursor of the fourth pillar of International Maritime Law, namely MLC. In general, this text is also indicative of the wider phenomenon of the anthropomorphism of ships in Maritime Law. So, it results a paradox coming from the content of this classical treaty of the Law of the Sea, which is not uniquely a pioneer convention of this branch of law, being still customary, but also emblematic and modern as far as Maritime Law is concerned. This phenomenon has been called the 'Maritime Law paradox' (Maniatis, 2018a) and constitutes another aspect of the paradoxical content of this treaty, which combines "full and absolute sovereignty" of Norway with "equal enjoyment and access" of States like Egypt and even landlocked ones.

## **EGYPT UPON THE LAW OF THE SEA**

Egypt signed the United Nations Convention on the Law of the Sea (UNCLOS) on 10 December 1982 and ratified it on 26 August 1983. The Convention was modified through the "Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea", a few months before its activation (Maniatis, 2018b). The second text, signed in May 1994, amended the first one, as for the novelty of the Area of the International Seabed. It has been ratified by the vast majority of States but three United Nations members states (Egypt, Sudan, USA) have signed it but have not also ratified it. Egypt signed this document on 22 March 1995 whilst Greece ratified both the Convention and the Agreement in that year, just as these countries were associated to the Spitsbergen Treaty.

Egypt exploits a great variety of zones and rights upon the current Law of the Sea. It has a 12 nm territorial sea, as the vast majority of countries, and therefore a 12 nm contiguous zone. According to article 33 par. 2 of the UNCLOS "*The contiguous zone may not extend beyond 24 nautical miles from the baselines from which the breadth of the territorial sea is measured*". This country exemplifies the group of countries, along with South Yemen, Poland and Bangladesh, which has extended its jurisdiction in the

contiguous zone, as for security issues (defence targets) (Alexopoulos and Fournarakis, 2015). This kind of competence is not recognized by UNCLOS.

Being one of the three mainstreaming "archaeological countries", along with Greece and Italy, Egypt ratified on 30/08/2017, the UNESCO Convention on the protection of the underwater cultural heritage. This Convention, which does not implicate any changes in the zones consecrated in UNCLOS, was adopted in 2001 and entered into force on 2 January 2009. Italy ratified it on 8/1/2010 but had already incorporated its content, in an informal and preliminary way, in 2004 (Maniatis, 2018). Anyway, Greece did not sign this text and has not been a contracting party, to date.

Egypt has established an Exclusive Economic Zone (EEZ) in the Mediterranean Sea and the Red Sea. Cyprus signed EEZ delimitation agreements of its EEZ, activated in 2004, with Egypt (2003), Lebanon (2007) and Israel (2010). The delimitation effected with these agreements is based on the median line method, being typical of the practice of the Law of the Sea.

During Hosni Mubarak's presidency, Greece sought to demarcate its maritime borders with Egypt, but it received no response. In January 2011, Arab Spring emerged and new political regimes have resulted in Egypt. Following the coup of 3<sup>rd</sup> July 2013 against the first democratically elected President, a new regime emerged, that of the President Al Sisi. Egyptian, Greek and Cypriot military relations have become tighter, with a tripartite security agreement, which was signed in 2015. These States of the Eastern Mediterranean began conducting the joint military exercises known as Medusa, in the same year. Never before, at least in the last decades, the relations between the Egyptian State and the Greek one have been so good, in spite of the fact that the Eastern Mediterranean pipeline (or simply EastMed) does not have to do (directly) with Egypt. EastMed is a planned offshore/onshore natural gas pipeline for the transport of natural gas from the off-shore gas reserves in the Levantine Basin into Greece, and in conjunction with the Poseidon and IGB pipelines into Italy and other regions of Europe. This work is developed by IGI Poseidon S.A., a joint venture of the Greek "Public Gas Corporation" and the Italian gas utility "Edison". In January 2020, the EastMed Pipeline accord was signed by Greece, Cyprus and Israel and was approved by the Greek Parliament, through Law 4687/2020.

Furthermore, Greece must emit maritime spatial plans till 31 March 2021 for the environmental protection of its sea zones, after an exchange of views with neighbor States, upon Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning. It is notable that so far, the EU's desire to regulate maritime matters has yielded mixed results. One can see considerable benefits in implementing international conventions into the EU legal system but it would be desirable when this is done, to clarify vague or contentious provisions of the relevant international regime in the implementing secondary legislation so that a

more harmonized regime could be achieved within EU (Soyer, 2016). According to Whereas (1) of this directive, the high and rapidly increasing demand for maritime space for different purposes, such as installations for the production of energy from renewable sources, oil and gas exploration and exploitation, maritime shipping and fishing activities, ecosystem and biodiversity conservation, the extraction of raw materials, tourism, aquaculture installations and underwater cultural heritage, as well as the multiple pressures on coastal resources, require an integrated planning and management approach. It is estimated that it is about a challenge for Greece to broaden its territorial sea and declare its EEZ.

Anyway, Greece made an important step forward by signing the Convention of 9<sup>th</sup> June 2020 with Italy, as for the delimitation of EEZ of these countries. It is about the first time that Greece managed to declare an EEZ, let alone with an ally country, such as Italy.

Furthermore, Greece signed with Egypt an agreement on 06.08.2020, designating an EEZ in the eastern Mediterranean between the two countries. Although it is about a partial accord, which has not to do with the sui generis case of Kastelorizo and two other Greek islets of the same region, it fits in with the already expressed rejection of the 2019 memorandum on demarcation of Turkish and Libyan EEZ. Turkey and the internationally recognised government of Libya agreed to maritime boundaries in a deal that Greece and Egypt decried as a violation of international law. According to Greece, that memorandum infringed on its continental shelf and specifically that off the island of Crete.

Last but not least, Egypt has formed with other countries, such as Greece, Cyprus, Israel, Italy and Jordan, the “Eastern Mediterranean Gas Forum”, which aims to develop the region’s gas market. This mainstreaming State hopes to become an energy hub through the fast growth in its natural gas supplies.

## **THE SUEZ CANAL**

The Suez Canal connects the Mediterranean and the Gulf of Suez in the Red Sea. When it opened in 1869, operation was committed to the Universal Suez Canal Company pursuant to a ninety-nine year concession. There is no generic international convention on the use of canals, worldwide. Just the opposite, there is an ad hoc convention, which was stipulated a long time after the completion of this technical work. The Constantinople Convention Respecting the Free Navigation of the Suez Canal, of 29 October 1888, has been the first treaty in the history of International Law to declare the principle of freedom of use of a sea canal by ships of all nations.

The major political unrest linked to the Suez Canal, known as the Suez Crisis, started in July 1956, when the then Egyptian President Gamal Abdel Nasser nationalized the Canal and closed the Straits of Tiran (Mohit, 2019). The decision resulted in the invasion of Egypt by the UK, France, and Israel. It

was only after the intervention of the United Nations, the three forces withdrew from Egypt, allowing the country to reopen the Canal for commercial shipping. The political unrest, however, continued for a long time to come and the Canal was shut down by the Egyptian authorities in 1967 during Six-day War between Israel and Egypt. It is to signalize that this institutional adventure of the concession on the Canal resulted in discouraging a very long duration of a concession contract, in Comparative Law. Suez is relevant to various developments from a technical point of view. First of all, the disappearance of sailboats at the end of nineteenth century is associated to the opening of the Canal, given that this construction was difficult to pass by such ships (Guillaume, n. d.). More recently, closing the Canal (1967-1975) contributed indirectly to the imposition of gigantism of ships. The use of the route of the Cape of Good Hope could only be offset by the increase in the size of large carriers. The Canal is also relevant to geopolitical revolutions, given that it punctuated the discreet clashes between France and the United Kingdom, before the 1956 crisis sanctioned or revealed their decline, in favor of the USA and the Soviet Union. In its current status, the most important part of its legal regime consists in the "Rules of navigation", being available in the website of the Suez Canal Authority. Article 1 foresees that "*Transit through the Suez Canal is allowed to vessels of all nations subject to comply with the conditions stated in the present Rules of Navigation*". These rules determine the operation and the organization of the management of the Canal by fixing the competencies of the authorities of the Canal and the maritime administrative services being relevant to the navigation in it (Ahmed, 2015).

Besides, straits and canals are not about to leave the concerns of State leaders and maritime players, as the rise in traffic on the Suez Canal shows: from around thirty million tonnes at the end of the Second World War, transit rose to more than 900 million tonnes in 2013, just before new works in 2014 and 2015 to improve the flow of the passage (Guillaume, n. d.). In 2015, Egypt completed a major expansion of the Canal that saw the deepening of its parts and the construction of a second 35km-long shipping lane along part of the main waterway (Mohit, 2019). According to varying intensities, the influence of globalization and the interests of the great powers weigh on these sensitive places, and local territories can benefit from them and organize themselves around projects derived from market flows (Guillaume, n. d.). Singapore, where about 30% of world trade flows, is the most advanced figure.

However, it is also to make a reference to the case of the Panama Canal, which is comparable in many aspects to that of Suez. This construction depends particularly on the management of water, having an artificial big lake, Gatun Lake, as the main source of water for the waterway. A necessary modernization to cope with competition was held in a parallel way to the aforementioned technical works relevant to the Suez Canal. It is about a new canal and new locks (which opened in June 2016),

allowing the passage of neo-Panamax ships (up to 13,000 containers) against the traditional locks, permitting the passage of Panamax ships (up to 5,000 containers) (Guillaume, n.d.).

The project of the canal of Nicaragua to allow the passage of post-Panamax vessels (up to 25,000 containers) has been a proposed shipping route through Nicaragua to connect the Caribbean Sea and therefore the Atlantic Ocean with the Pacific Ocean. However, this technical work probably will not be constructed. Anyway, the Chinese proposals to overtake Panama with it testify to China's desire to assert itself as a great power (Guillaume, n.d.).

## **CONCLUSION: EGYPT, THE SYMBOL OF FREEDOM OF NAVIGATION**

Due to the presence of the Suez Canal, maritime traffic in Egyptian waters is very intense and subsequently Egyptian Maritime Law has a wider impact. This construction has proved to be of major importance not only in geopolitical and technical terms but also to juridical ones. The liberty of use of the Canal ties in with the most important rule of the entire Law of the Sea, which consists in the freedom at the high seas, particularly as far as navigation is concerned. The oldest current State of the world offers to mankind, particularly to the Greek nation which is the leader in terms of tonnage of owned ships of merchant navy, one of the four most important interoceanic passages, along with the Panama Canal, the Strait of Malacca and the Strait of Hormuz.

We consider that the freedom to transit through the Canal could be seen as a precursor of the sui generis regime of the Svalbard Archipelago, to which Egypt is an equal partner in virtue of Spitsbergen Treaty. The doctrine has not highlighted this tendency of liberty, which is localized in particular areas of the Law of the Sea. It is about a significant phenomenon beyond the high sea and is exemplified by the Suez Canal and the territorial waters of Svalbard, as these areas have Egypt in common. Last but not least, the liberalization went further in UNCLOS, as for the international navigation straights with the right to transit passage (instead of the right to innocent passage) as well as the eventual archipelagic sea lanes of archipelagic States (according to article 53 par. 2 of UNCLOS), with the "right of archipelagic sea lanes passage" which is equivalent to the right to transit passage. It results a one-century gradual tendency of liberalization of navigation in areas and zones different from the classical zone of high sea, against the national sovereignty of the coastal State involved (1888-1982).

Furthermore, Egypt has exploited in a very extended way the opportunities offered by International Law, by creating optional zones of the Law of the Sea, such as contiguous zone and EEZ, and also by offering the best possible protection to underwater antiquities, as foreseen by the UNESCO Convention. However, there are some legal and political issues to cope with, being relevant to the

defensive use of the contiguous zone and the question of ratification of the 1994 Agreement, which modified the initial version of UNCLOS.

As for the relations of Egypt with the Hellenic Republic, it has significantly upgraded them, from 2015 and on. Greece has managed to find the ally-neighbour it had been looking for rather in vain for decades, not to speak about the variety of historical features these countries have in common. This upgrade of relations between these famous civilizations may be conducive to socioeconomic development and political stability in the entire region of the Eastern Mediterranean and in a wider context. Similar remarks are valid in the matter of other Mediterranean countries, such as Greece and Italy, which are much more motivated to cooperate, particularly in the EU framework, being exemplified by Directive 2014/89/EU.

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## DIGITAL TRANSFORMATION IN FOOD SMES: THE IMPACT ON BUSINESS MODEL INNOVATION AND INTERNATIONALISATION

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### ABSTRACT

The present study examines the impact of digital transformation on business model innovation (with a focus on the customer value creation and co-creation) and internationalization in the context of small and medium-sized firms (SMEs) operating in the food industry. The study tries to answer the following research questions: 1) How is the digital transformation changing the consumer value creation and the co-creation process of SMEs operating in the food industry? 2) How is the digital transformation changing the internationalisation strategies of SMEs operating in the food industry? To answer these research questions, we present a multiple case study research on the digital transformation of three Italian food SMEs. We found that for all the selected SMEs digital instruments contribute to innovate their business model, creating new distribution channels and new ways to create (co-create) and deliver value to customer segments; moreover, the use in particular of social media becomes one of the most important drivers and the “prerequisite” for internationalisation. Our study contributes to the existing literature on business model and digital transformation for this type of SMEs, providing also insights for the internationalisation literature. In addition to the theoretical implications, this study provides some managerial implications to accomplish the digital transformation of SMEs operating in the food industry.

*Keywords: digital transformation, internationalization, food industry.*

### INTRODUCTION

In recent years, digital transformation is revolutionizing the way companies carry out their business, creating relationships with consumers, suppliers and other actors (Bresciani et al., 2018; Scuotto et al., 2019), and fostering business model innovation and internationalization processes. Digitalization is shaping the traditional interaction between consumers and businesses (Taiminen and Karjaluoto, 2014). In particular, consumers have access to dozens of media channels with whom they may actively and effortlessly communicate with firms and other consumers, and pass through rapidly increasing number of touchpoints in their customer journey, many of which are digital (Verhoef et al., 2019).

Extant literature has traditionally explored the implementation of digital technologies in large corporations (Cenamor et al., 2019) or in particularly innovative businesses, digital start-ups and high-tech giants (Ghiezzi and Cavallo, 2019), while specific studies focused on entrepreneurial SMEs operating in traditional industries are relatively scarce, nevertheless this type of firm is recognized as innovative and a contributor to economic growth in many countries (for instance: Scuotto et al., 2017; Li et al. 2017). However, to the best of our knowledge, understanding how entrepreneurial SMEs utilize new digital tools in order to “shape” the process of customer value creation and co-creation both in domestic and international contexts requires more in-depth investigation.

Hence, to fill the literature gap, we ask: How the digital transformation is changing the consumer value creation and the co-creation process of entrepreneurial/family SMEs operating in the food industry? And How the digital transformation is changing the internationalization strategies of SMEs operating in the food industry?

To answer these research questions, we present a multiple case study research on the digital transformation of three food SMEs. The choice of the food industry is related to the fact that it is experiencing increasing changes with growing pressures from consumers (Vrontis et al., 2016; Bresciani, 2017). Food firms are facing new challenges, such as the increasing competition and the establishment of new disruptive technologies, such as IoT and big data (Franceschelli et al. 2018).

The remainder of this paper is organised as follows. Section Two provides the theoretical framework useful to carry out the explorative research by addressing the extant literature on digitalisation, business model and internationalisation. Section Three explains the research design and method. Section Four describes the major empirical findings of the analysis and presents the principal outcomes. Finally, Section Five discusses the academic and practical implications, together with the concluding remarks.

## LITERATURE REVIEW

### *Digital transformation and business model*

Digital transformation has received an increasing attention over the last two decades (Cha et al., 2015; Warner and Wager, 2019; Rachinger et al. 2018; Morakanyane et al., 2017). Analysing the evolution of the digital technologies for firm’s strategies, innovation and business model, at the beginning, companies were mostly involved in the application of internal management information systems such as Enterprise Resource Planning or Customer Relationship Management (Boersma and Kingma, 2005). In recent years, new digital technologies, such as big data, artificial intelligence, 4.0 machines, are revolutionizing the “way companies do business” (Rothberg and Erickson, 2017).

However, digital technologies may enhance not only operational efficiency by optimizing process management, but also market orientation through advanced market knowledge (Cenamora et al., 2019). Companies are focused on the application of cross-boundary digital technologies (Li et al., 2017), aimed at transforming the way organizations create value and the way organizations and consumers interact and exchange value (Yadav and Pavlou, 2014). Digital technologies, in fact, improve communication with customers (existing and potential) enabling their requirements to be better understood and facilitating customized offerings and new products tailored on the specific needs of customers (Barnes et al., 2012).

Within the business model (BM) framework, literature has found that digitalisation modifies the entire structure of business models and the value architecture of a business (Volberda et al., 2017; Saebi et al., 2017). This is true not only in high tech and digital industries but also in the traditional ones (Ferraris et al., 2018; Warner and Wäger, 2019)

Several studies have also found that digitalization can influence and innovate BM in three different ways: optimization of the existing BM (e.g. cost optimization); transformation of the existing BM (e.g. reconfiguration of existing models, extension of the established business); and development of a new BM (new customers, new products/services) (Rachinge et al., 2018). Arnold et al. (2016) argue that BM changes can be differentiated into BM development and BM innovation (BMI). In these perspective, digitalisation leads to a BMI, i.e. “the changes made in the business logic for creating and capturing value” (Bouwman et al., 2018, p. 107).

More specifically, we are interested in examining how digital technologies could lead to BMI (Bouwman et al., 2017), with particular regard how they affect the value proposition and customer relationships (Arnold et al., 2016). The “mobile revolution”, in fact, with the increasing power of social media and of analytics, has promote a digital transformation of the customer value creation (Rachinge et al., 2018): new apps, new services, new platforms, new data and new devices “have become a crowded play-ground for all kinds of companies that want to tap emerging chances” (Zott and Amit, 2017).

In this perspective, scholarly attention has delved into the diffusion of digital technologies that are focused on the value proposition and customer relationships. In particular, social media (with the raising relevance of mobile devices) have radically created new ways of interacting (Taiminen and Karjaluoto, 2015), innovating the customer value propositions and organizing innovative delivery operations (Swani, et al., 2017). Augmented reality transforms how individuals interact with their physical environments (Ferreira et al., 2019), improving the hedonic value of experience (Kim and Forsythe, 2008) and providing users the ability to share their experiences on social networks (Muzellec

and O'Raghallaigh, 2018). In this scenario, also Big Data affect the marketing mix: product (Yadav and Pavlou, 2014).

#### *SMEs adoption of digital technologies throughout the overall customer lifecycle*

Social media and mobile applications have brought revolutionary new ways of implementing corporate brand communication strategies, encouraging interaction, participation, cooperation. They stimulate continuous dialogue with customers, influencing brand meanings and messages, and dictating product or service developments. Social media involves users generating content and connecting with people through a many-to-many, rather than the traditional "one-to-many", communication approach allowing customers create and be active participants in the process. Some authors (Sawhney et al., 2005) have already showed multitude of innovative, real-time technologies as central to develop dialogue with customers throughout the customer journey and to influence one's overall brand preference (Baxendale et al, 2015; Lemon and Verhoef, 2016).

Owed to the evolution of the consumer journey, that is expected to grow further, SMEs have to change their marketing practices by increasingly utilizing technological touch-points as main elements in their marketing communications and interactions in order to increase loyalty amongst current consumers and allows them to publicly advocate the brand.

SMEs have the chance to interact with their customers at any stages from the buying decision process to the post-consumption process by exhibiting their services and benefits in an entertaining, non-intrusive manner, engage with consumers in a user-friendly and enjoyable environment (Clatworthy, 2012).

Sashi (2012) proposes a customer engagement framework that establishes the unique role played by social platforms at different stages of the relationship life cycle, from pre-sales information to post-purchase dialogue: from creation of experiential value for consumers, increasing their interaction and their willingness to purchase a given brand to customer satisfaction and customer engagement.

Customer's highly positive emotions during the customer's journey and over time drive to brand advocacy (the interaction with others in their social networks to spread the word about their positive experiences with a product, brand, or company) and engagement (the inclusion of customers in the value co-creation) enhancing satisfaction of the needs of customers as well as firm, since they become fans in interactions with other current or potential customers.

#### *Digital technologies and SMEs internationalization*

Some scholars (Etemad et al., 2010) introduce the term "internetization" to refer 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 SMEs.

Increased use and investments in digital technologies lead to higher degrees of internationalization and growth (Davis and Harveston, 2000). One of the reasons is that they can provide a way to decrease the effects of liability of foreignness and resource scarcity, and herewith contribute to increase speed of internationalization (Arenius et al., 2005) and to widen market opportunities.

The platforms may help to succeed in international expansion by enabling firms to obtain access to a wider network that provides millions of potential consumers and market knowledge. These platforms alleviate barriers to entry such as psychic distance and help firms with financial resource constraints build up brand awareness at relatively low cost.

Firms adopting an international approach could exploit global market opportunities more rapidly and obtain significant competitive advantage (Zhou et al., 2007). Social media platforms offer their own built-in analytical services such as Facebook Analytics, Twitter Analyser and YouTube Analytics which provide information on traffic and popularity such as the number of followers, likes, comments, etc. Other tools provided by search engines such as Google Analytics and Google Alerts can be used to analyze site traffic and the amount of times a brand, company or product has been mentioned (McCann and Barlow, 2015). These analytical services play a role of paramount importance in gaining data and information useful to better understand foreign consumers and markets (Ciravegna et al., 2014; Fernhaber and Li, 2013) and to develop superior marketing capabilities that are the prerequisite to succeed internationally.

## **METHODS**

The empirical data for this study were collected by applying a multiple case study approach (Yin, 1994; Cunningham, 1997; Eisenhardt and Graebner, 2007). We carried out several in-depth and semi-structured interviews based on face to face meetings using a semi-structured questionnaire, which allows for comparisons across the selected companies, as suggested by Massingham (2004). We interviewed entrepreneurs and managers responsible for corporate and business strategy and digitalization. In particular, the questionnaire was aimed at evaluating the digital transformation in terms of: i) digital tools and distribution channel for the customer value creation (or co-creation) (for instance, Sashi, 2012); ii) impact on the business model innovation (Zott et al., 2011); iii) impact on internationalization (Etemad et al., 2010); iv) leadership and major trigger of digital transformation (Teece, 2007).

In addition to primary data from interviews, secondary data from documents (such as business publications, corporate presentations, internet-based information, and newspapers) were gathered. We triangulated these data with the primary data, analysing the results and their coherence and reinforcing the knowledge of each company.

*Cases' selection and companies' profiles*

In line with the exploratory research purposes, the cases have been selected not because they are a representative sample in statistical terms but because they are considered able to provide significant insights concerning the relationship between the digitalisation and the business model transformation, with a focus on internationalization in the Italian food industry. Table 1 summarizes the research cases in terms of profile of the companies, strategies, channels and used digital tools.

*Fratelli Carli* is a company mainly focused on Olive Oil and Mediterranean specialities (such as preserves in oil and sauces). It was founded in 1911. Its strategy is characterised by segmenting the market using the distribution channel which is exclusively based on home delivery. The company seeks a differentiation advantage in terms of product quality and customer service. Investments in CRM and digital marketing tools has led to a better brand position. Over the years, Fratelli Carli has diversified its portfolio by adding the line of cosmetics (the “Mediterranea” brand) to the traditional oil and food specialities (the core business). This diversification strategy has been driven by synergies in sharing the same channel, logistics system and customer relationships database.

| Company                          | Profiles/Strategic Business Units                        | Year of foundation | Location                     | Strategic paths  | Position of the respondent                                   | Channels   | Digital tools  |
|----------------------------------|--|--------------------|------------------------------|--|--|--|--|
| Fratelli Carli S.p.A.            | Olive<br>Oil/Mediterranean food specialties<br>Cosmetics | 1911               | Imperia                      | Focus on a market niche: home delivery/e-commerce<br>High differentiation: brand image<br>Diversification (cosmetics: Mediterranean)<br>Internationalisation (FDI and export)  | Family Entrepreneur<br>Responsible for Cosmetics<br>Division | Oil:<br>Home delivery<br>Mailing<br>Call center<br>E-commerce<br><br>Cosmetics:<br>the same +<br>Physical store<br>Marketplaces (Amazon) | Social media<br>Web (shop window and e-commerce)<br>CRM<br>QR Code<br>Big Data Analysis                              |
| De Matteis Agroalimentare S.p.A. | Pasta  | 1993               | Flumeri (Avellino)           | Focus on a market niche: tasty and genuine pasta made of 100% high quality Italian wheat<br>High differentiation: brand image embodying the Italian genuine pasta<br>Contractual vertical integration with farmers and agronomists<br>Internationalisation (partnerships with large retailers and export)  | Family entrepreneur<br>CEO and General Director              | Agents and distributors present in many international markets<br>E-commerce<br>Marketplaces  | App for B2B<br>Web (shop window and e-commerce)<br>Social media<br>Big data Analysis                                 |
| Oliviero S.r.l.                  | Confectionary  | 1910               | Monteforte Irpino (Avellino) | Focus on a market niche: quality, first choice materials and food safety.<br>Product innovation: joint research project innovation with main customers<br>High differentiation: wide assortment of products made in Italy from crumbly or soft nougat to chocolate, Easter eggs, marrons glacés, cereal bars from organic to gluten free<br>Vertical integration<br>Internationalisation (partnership with large distribution chains and export) | Member of the Board of Directors<br>CFO                      | Agents and distributors present in many international markets<br>E-commerce<br>Marketplaces<br>Flagship stores                           | App for B2B<br>Web (shop window and e-commerce)<br>Social media<br>CRM<br>Big data Analysis<br>Chatbot<br>Smart wall |

Table 1. Profiles and used digital tools of the selected companies

*De Matteis Agroalimentare* is a producer of durum wheat pasta founded in 1993 by two entrepreneurial families operating in the construction business for more than 50 years. Initially it was just a mill with a small pasta factory, which then became a world player in the pasta industry, with a very significant growth rate. De Matteis pasta company is one of the few in Italy with its own mill and an integrated wheat-pasta production chain. It has a control laboratory inside the mill in order to select the best wheat and making sure it meets strict standards of product quality. The premium brand of the company “pasta Armando” is only made of 100% Italian durum wheat from the “Armando” production chain based on an agreement with more than 1,500 farmers and 16,000 cultivated hectares. Oliviero is a confectionary producer based in Monteforte Irpino founded in 1910. Its strategy is based on a high differentiation with a wide assortment of Made in Italy products ranging from crumbly or soft nougat chocolate to Easter eggs, marrons glacés and cereal bars, also organic and gluten free. The company is oriented to high quality using first choice materials and to food safety

## MAIN RESULTS AND DISCUSSION

The studied SMEs are established in a mature industry (food) with “traditional ways of doing businesses”, but all the companies have set up a digital transformation process for shaping, in particular, the relationships with their customers, changing the traditional business model, as emerging from Table 2. First of all, digitalisation leads all the companies to an omnichannel distribution, merging the on-line and off-line environments. Digitalisation allows the consumer to integrate different distribution channels, enhancing the purchasing experience, adding information and stimulating conversations consumer-company and consumer-consumer at each stage of the consumer journey. The new business models are therefore primarily influenced by a changing in the distribution channels based on the website, e-commerce and social media. Fratelli Carli was born as a B2C company and since its origin it was characterized by direct marketing, selling via printed flier/catalogue or phone, and home delivery. In October 1996, Fratelli Carli decided to invest in e-commerce with its website (“*it was a natural evolution*”). In the last years, they have invested also in physical shops (flagship stores) in order to bring the product closer to the consumer. Moreover, Fratelli Carli is actually partner of some digital Marketplaces (e.g. Amazon), especially for the Mediterranean brand. All the distribution channels (mailing/phone + e-commerce + digital platforms + physical stores) are integrated in a holistic way, in order to enhance the number of touchpoints and to accomplish the consumer along her/his consumer journey. Thanks to the digitalisation, De Matteis could develop and strengthen a direct relationship both upstream with the farmers and downstream with the modern distribution channels. Particularly, they built with the most advanced retailers “*a shared database where to upload all the technical information on the products. There are some platforms where the data can be uploaded directly by the suppliers*”

*and we are reaching a whole integration: the ownership of the information is shared, involving a significant change in the processes".* Since the 85% of the De Matteis's turnover is made by export and the company is present in 45 countries, the possibility to create a strong partnership with the major grocery retailers abroad, allowed the company to consolidate its position in the foreign markets. In addition, despite De Matteis has not developed the Amazon channel on its own, its products are sold on Amazon by its business customers (*"you finish to sell on Amazon regardless your specific willingness to do it"*), thus inducing the management to think about the opportunity to consider this marketplace to increase the market share, especially for the products of the premium brand "pasta Armando".

Following Vial (2019), our results confirm that SMEs use digital technologies to change their distribution and sales channels. According to the extant literature (for instance: Ciravegna et al., 2014; Fernhaber and Li, 2013), digitalization supports the internationalization strategy: in particular, social media and e-commerce platforms are able to reach and entertain a dialogue with new consumers belonging to international countries, useful for understanding the opportunities emerging from the markets. As regards if and how the selected companies use digital instruments, we found very interesting results. All the companies employ different types of digital instruments oriented to various subjects (consumers, distributors, suppliers) and with diverse aims. De Matteis has developed a particular supplier-oriented App *"which has the objective to talk to a huge community of farmers in order to give them both agronomic and commercial information....We alternate this kind of information with marketing ones, focused on communication initiatives related to the brand Armando in order to keep the two worlds of production and distribution connected"*. With this tool, they can easily know what is available in stock, see their orders' history, download the official marketing material, and send after-sales requests.

QR-Code is used only by Fratelli Carli: the QR-Code is applied on each product and is considered an "electronic label", useful in the purchasing or post-purchasing phases, in terms of product information (i.e. characteristics, ingredients, nutrition elements), traceability and valorisation of the branded products for the costumers.

|                                  | BM transformation   | Impact on internationalisation  | Major trigger of digital transformation  | Leader in the digitalization process | Main useful resources   |
|----------------------------------|---|---|--|--------------------------------------|---|
| Fratelli Carli S.p.A.            | <p>Prior Business Model:<br/>B2C via mailing</p> <p>Replaced business model:<br/>E-commerce<br/>Omnichannel<br/>More intense relationship with customers</p>  | New international markets   | <p>Curiosity “of the first mover in the Italian e-commerce domain”</p> <p>New digital technology development</p>   | Family                               | <p>Human Resources</p> <p>Technology</p> <p>Reputation</p>  |
| De Matteis Agroalimentare S.p.A. | <p>Prior Business Model:<br/>B2B production for private labels and B2C own brands (medium/ high end market)</p> <p>Replaced business model:<br/>Focus on the premium brand (agreement with farmers and agronomists for obtaining the best quality wheat )</p> | <p>New international markets</p> <p>Targeted web advertising campaigns to the end market in foreign countries</p> | <p>High technological standard of business customers (large-scale retailers)</p> <p>Curiosity of the top management towards the potentiality of the new digital technologies</p> | Family+mkg function                  | <p>Human resources</p> <p>Technology</p> <p>Relationship capital (upstream with farmers/agronomists and downstream with the distribution network)</p> |
| Oliviero S.r.l.                  | <p>Prior Business Model:<br/>B2B production for private labels</p> <p>Replaced business model:<br/>B2C<br/>E-commerce<br/>More intense relationship with customers</p>  | New international markets   | <p>Curiosity of the new generation of family managers towards the new digital technology development</p>   | New generation of family managers    | <p>Managerial Resources</p> <p>Technology</p>   |

Table 2. *Business models changes and impact on the internationalisation strategies of the digital transformation*

Despite De Matteis acknowledges that the QR-Code would be a natural step for an integrated supply chain like that of pasta Armando, there are many technical problems related to the packaging that presents very high adjustment costs. Fratelli Carli recognizes that App and chatbot can create high potentials, but they are not endowed with them (*"it is not easy to keep alive an App for us"; "in the past, we had a Forum... at the moment the chatbot is not a priority; we prefer to use and select social media that are consistent with our target"*).

For all the companies, the most important benefits stemming from digital transformation seem to be related to the cross-valorisation of Social Media, CRM and Big Data Analytics. According to Taiminen and Karjaluoto (2015), the results confirm that social media have radically created new ways of interacting and are actually considered the most important mean of communication and value co-creation within the business model. The selected companies, in fact, invested in particular in Instagram and Facebook; these instruments are aimed at implementing and improving corporate brand communication strategies, encouraging interaction, participation and collaboration with consumers. Social media encompass social networking, blogging, influencers engagement to promote the brand, paid advertisements, video and photo virally spread. For De Matteis, social media are giving the great opportunity to directly keep in contact with consumers, because food is a traditional product that requires the involvement of an intermediary to be distributed to the end market. Social media are the appropriate response to the dynamic change that the food sector is experiencing, that is characterised by a new kind of consumer that wants to connect with the product in order to live a unique experience. *"In relation to this trend, we use social media to make consumers live our world throughout the recipes and the several ways of cooking our pasta"*. An important role is also played by the testimonial Alessandro Borghese, one of the most important Italian food influencer, with several hundred thousand followers on his social pages. In addition, social media are the tools to make the consumer understanding the whole integrated chain of pasta Armando and the backstage of the product, such as the food safety and the quality of the wheat. Regarding the international markets, the company uses the social media of its foreign business customers to promote its products to a specific market target, for example to reach consumers that live close to the supermarkets where the products are distributed. *"We did this kind of promotion with Delhaize chain in Belgium and in Spain, where we advertised some videos through the Facebook pages of the large-scale retailer"*. Social media are also useful for Big Data Analysis. The activity of reading the comments and the consumer behaviour on social media, help the companies to shape the value creation on the basis of consumers' profiles; also product innovation is tested using Big Data, without waiting for insights from traditional marketing researches; moreover, it is possible to apply dynamic pricing based on changing consumer demand and to create personal promotions. De Matteis is developing a project of Artificial Intelligence to forecast the demand in order to plan the industrial

activities and to provide the product when is needed and in the right quantities, avoiding broken stocks. The model is based on some algorithms using company's historical data combined with external databases. In the USA the company is going to study the seasonality of the pasta market, by linking it to some national celebrations to forecast demand peaks and declines. Not all the cases report a positive experience with the analysis of Big Data: Sovet is investing with and an external partner in CRM and Big Data Analysis, but at the moment the results are not satisfactory.

On the basis of the previous results, it emerges how digitalisation is the driver of the changing of the key components of the business model, also for companies operating in the traditional business, confirming Ferraris et al. (2018) and Warner and Wäger (2019). Moreover, according to Ashley and Tuten (2015), digital technologies help SMEs to overcome the disadvantage of small size, allowing to generate and communicate content and engage consumers, as well as to develop brand presence quickly and at a much lower cost than ever before. This is especially true for international markets, where digital instruments are becoming essential for: engaging new customers, creating relationships and brand affection, directly selling the products abroad and better understanding of consumers' needs and changing attitudes.

## CONCLUSION

This study scrutinizes how entrepreneurial/family SMEs operating in the food industry have changed their business models, in terms of processes of consumer value creation and co-creation, and internationalization paths as a result of the digital transformation.

We decided to focus only on the digital tools "demand side", neglecting the appliance of digital technologies to the "supply side" of the business model. The context of analysis is represented by SMEs operating in the Italian food industry.

From the analysis of three case studies, it emerges that the investigated entrepreneurial/family SMEs are inclined to use digital instruments both in the distribution, the communication and the market analysis phases, shaping their business models. In particular, digital instruments (e.g. social media, augmented reality, chatbot) help the firms to modify the process of consumer value creation, generating new distribution channels that are integrated in an omnichannel perspective, accomplishing deeper and new relationships with the existing consumers and enlarging the covered markets, also at international level. Therefore, digital transformation is considered the first driver and the condition sine qua non for the internationalization strategy.

This study provides theoretical and practical implications. In terms of theoretical implications, first of all, this explorative study helps to enrich the business model and digital transformation literature for SMEs that is still a neglected area of research. Secondly, the focus on food enhances the knowledge

about the current application of digital marketing instruments for the business model innovation and internationalization of the firms operating in this mature traditional industry. Moreover, this research has significant managerial implications. Digital technologies help SMEs operating in traditional sectors, where firm's reputation, brand awareness and customer relationships are important competitive levers to reach success; the digital transformation is also a condition for internationalization, especially in B2C sectors where the brand awareness is crucial. In this vein, neglecting the digital instruments is very risky and may seriously compromise the survivorship of the firm.

Despite the importance of these empirical results and practical implications, this study presents some inherent limitations, which might be challenged in future research. First, the study is based on a multiple case study design that does not provide static generalizations, yet it offers a "stepping stone" to building new theory. In this sense, this study is a pilot study for other analyses. Further studies are needed to extend the number of case studies by including other types of SMEs. Second, the number of investigated variables could be expanded by adding other factors related to the digital transformation, such as the production/logistics (Industry 4.0) and the micro foundations of the organization (e.g HRM).

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## BUSINESS DIPLOMACY: AN INEVITABLE REQUIREMENT FOR SUCCESSFUL INTERNATIONAL ENDEAVOURS

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### ABSTRACT

The purpose of this paper is to demonstrate the importance of Business Diplomacy in international business, namely how this strategic tool impacts on the overall operations of firms when doing business abroad. The methodology used is theoretical based on an historical, comprehensive and updated literature review, aimed to identify the effective intervention mechanisms that give basis to Business Diplomacy. The findings disclose a series of dimensions associated to Business Diplomacy, revealing a broad and strategic approach to managing foreign environments in all their scope (market and non-market actors), and at the same time the difference between Business Diplomacy and related concepts (ex: CSR), highlighting the effective add-value of this integrated approach. In this paper is clear the distinctive nature of this concept and its importance for firms to overcome the intrinsic challenges of doing business abroad, grounded on the concepts of co-evolution and shared value between the firm and its environment that characterizes the XXI century economy.

*Keywords: Business Diplomacy, International Business, Internationalization, Co-Evolution, Shared Value.*

### INTRODUCTION

One of the main challenges regarding International Business (IB), since the beginning of the work in this field (Kindleberger, 1969, Vernon, 1971) has been the study of theoretical frameworks and business practices that could help firms overcome the intrinsic challenges of doing business abroad (e.g., Hymer, 1976, Zaheer, 1995, etc.)

Internationalization models have also aim to reduce that inherent deficit associated to the foreignness status (Hadley and Wilson, 2003, Håkansson and Snehota, 1989, Johanson and Mattsson, 1988, Johanson and Vahlne, 1977, Johanson and Vahlne, 2009, Vahlne and Johanson, 2013, etc.)

In the meantime, studies in International Relations, concerning the field of Diplomacy, have been increasingly more related to economic issues (Economic/Commercial Diplomacy), and more recently to specific business practices of international firms, i.e., Business Diplomacy (Ruël and Wolters, 2016, Saner *et al.*, 2000, Steger, 2003, Yiu and Saner, 2017).

The relevance of Business Diplomacy (BD) can be in a way assessed following a special issue of the journal *Advanced Series in Management* of 2017 dedicated exclusively to this field entitled *International Business Diplomacy* (e.g., Marques, 2017, Sidibé, 2017, Windsor, 2017), where BD is portrayed as the “strategic management of interfaces between an enterprise and its external non-business counterparts that have an impact on its reputational capital and licence to operate (...) strengthen an enterprise’s ability to shape and influence its operational environment” (Yiu and Saner, 2017, p. 36).

The advent of this contemporary concept is based on the assumption, following the IB scenario where companies operate, that they cannot longer rely only on the best price or product in order to be successful, i.e., solely on market dimensions, they need to incorporate non-market dimensions in their overall strategy in order to be able to address the multiple elements that constitute the environment in which they operate and that increasingly affect their performance, thus the need for “their own representational mechanisms to manage the complex relationships that mark today’s global system” (Muldoon, 2005, p. 341), i.e., Business Diplomacy.

The MNC is therefore viewed as a global citizen, that needs to engage and manage all the actors that constitute and affect the environment in which it operates (that impacts on their overall performance), and through this way achieve its full potential, being this ability a central component of business management in the XXI century, where BD presents itself as the tool achieve this goal. Hence, the purpose of this paper is to demonstrate the importance of BD in international business, namely how this strategic tool impacts on the overall operations of firms when doing business abroad.

## **BUSINESS DIPLOMACY**

Although this field only began to be addressed at the academic level in the end of the 20<sup>th</sup> century, there are previous references to BD (Jackson, 1950, Herter, 1966) related to the new IB landscape after World War II, taking into account three major factors: the emergence of new state actors (e.g., processes of independence in Africa), increased international competition (Europe and Japan), and the end of the honeymoon phase that MNEs experienced from the early 1950s to the mid-1960s (Dunning and Lundan, 2008). Hence, the era of the footloose enterprise (Caves, 1996) was over, so there was a demand for “moving from business as usual to business with ethics, and from being a corporate raider to be a corporate resident” (Saner and Yiu, 2014, p. 313).

### *Concept*

Table 1: Definitions of Business Diplomacy

| Author(s)                               | Definition  |
|---|---|
| (Saner et al., 2000p, 85)               | "[I]nfluencing economic and social actors to create and seize new business opportunities; working with rule-making international bodies whose decisions affect international business; forestalling potential conflicts with stakeholders and minimizing political risks; and using multiple international forums and media channels to safeguard corporate image."   |
| (Steger, 2003, pp. 6-7)                 | "[A]n attempt to manage systematically and professionally the business environment in such a way as to ensure that 'business is done smoothly', basically with an unquestioned 'license to operate' and an interaction that leads to mutual adaptation between corporations and society."   |
| (Muldoon, 2005, p. 355)                 | "[Su]ccessfully managing complex interactions with governments, multilateral institutions, and global social movements."  |
| (Amann et al., 2007, p. 34)             | "[T]he attempt to manage the business environment systematically and professionally, to ensure that business is done smoothly, with an unquestioned license to operate and an interaction that leads to mutual adaptation between corporations and society in a sense of co-evolution."   |
| (Ordeix-Rigo and Duarte, 2009, p. 561)  | [T]he capability that some major transnational corporations develop to draft and implement their own programs, independent from the government's initiative, to pursue similar diplomatic aims.   |
| (Ruël, 2013, p. 41)                     | [T]he representation and communication activities deployed by international businesses with host government representatives and non-governmental representatives in order to establish and sustain a positive relationship to maintain legitimacy and a license to operate."  |
| (Saner and Yiu, 2014, p. 317)           | "[P]ertains to the management of interfaces between a MNE [Multinational Enterprise] and its external non-business counterparts (NGOs, CSOs, international organizations (IOs), national and local governments) that have an impact on the MNE's reputational capital and its ability to shape and influence its operational environment."  |
| (Søndergaard, 2014, p. 357)             | "[T]he ability to function effectively and simultaneously in a wide range of market conditions and to interact with external stakeholders such as governments, supranational institutions and global social movements."   |
| (Monteiro and Meneses, 2015, pp. 23-24) | [T]he actions (engage with multiple stakeholders, create long-term alliances, promote a triple bottom line business culture, uphold the corporate brand and reputation, increase transparency, act in international forums, etc.) undertaken by firms, when dealing with their surrounding environment (home and abroad), concerning multiple actors, market and non-market related, so as to overcome the intrinsic business constraints of doing business abroad, thus emerging as a strategic management mindset, in line with the overall strategy of the organisation, aiming for a win-win type of engagement." |
| (Alammar and Pauleen, 2016, p. 9)       | [T]he practice of establishing and maintaining positive relationships with internal and external business and non-business stakeholders, including employees, businesses, governments and civil society actors, to create and maintain legitimacy and a social licence to operate, create alliances, and shape and influence the environment."  |

Source: Adapted from Alammar (2018) and developed.

Nevertheless, some works in the 90s (e.g., Strange, 1992, Trice et al., 1995, London, 1999) it was only in the begging of the century with the seminal works of Saner *et al.* (2000) and Steger (2003) that BD gained a new breath (which continued and as grown ever since), portraying it, respectively, as a core competency for global companies, and as the strategy for a volatile and fragmented business environment. Table 1 presents the most relevant BD definitions.

Saner *et al.* (2000) states that for international businesses to improve their effectiveness they should develop their own form of diplomacy, as an integrated function inside the organization, in order to manage multiple stakeholders. As such BD is imperative to deal with foreign country expectations,

thus the need to “build bridges between core businesses and the complex political environments within which global firms conduct business” (Saner *et al.*, 2000, p. 80)

International businesses can prevent extra costs (e.g., settlements), lose business opportunities and market share (e.g., boycotts) and reputational capital (e.g., bad press), if firms are “equipped with adequate diplomatic know-how, political foresightedness and social competence” (Saner *et al.*, 2000, p. 82), i.e., BD.

According to this view BD is able to: create new business opportunities (e.g., through international agreements), help generate social capital (e.g., addressing host countries needs and expectations), and build relationships and social influence (e.g., through involvement in local communities) (Saner *et al.*, 2000).

Therefore, the goal of BD is “influencing economic and social actors to create and seize new business opportunities; working with rule-making international bodies whose decisions affect international business; forestalling potential conflicts with stakeholders and minimizing political risks; and using multiple international forums and media channels to safeguard corporate image and reputation” (Saner *et al.*, 2000, p. 85).

The other seminal work (Steger, 2003) states that BD is not about crisis management but about crises prevention, and that “companies are intertwined with surrounding society” (Steger, 2003, p. 6), i.e., the business environment (governments, international organizations, NGOs, investors, customers, retailers, employees, unions, communities, media, regulators, activists, etc.) that constitutes market and increasingly non-market forces.

Steger (2003) characterizes this scenario where businesses operate as a “goldfish bowl transparency” (p. 6), where perception is reality and if there is a problem anywhere in the world, it can have a global impact on the entire organization, being now the condition for international businesses to operate the need to have a “licence to operate” (Ibid, p. 7).

Amann *et al.* (2007) refers to BD as the need to “[T]he attempt to manage the business environment systematically and professionally, to ensure that business is done smoothly, with an unquestioned license to operate and an interaction that leads to mutual adaptation between corporations and society in a sense of co-evolution.” (Amann *et al.*, 2007, p. 34), with a mindset to detect and understand emerging issues, to look beyond the short-term profit and in a crisis prevention and not of a crisis management approach.

This concept of co-evolution is closely connected to another that is very aligned with grounded principles of BD that is *shared value*. Businesses are increasingly viewed as a major cause of social (ex: lower wages), environmental (ex: depletion of natural resources), and economic (ex: unemployment)

problems, perceived this way to prosper at the expenses of the community, being because of this the legitimacy of business more damaged today than ever before (Porter and Kramer, 2019).

A big part of the problem lies with companies themselves, which remained trapped in an outdated approach to value creation: optimizing short-term and financial performance vs a long-term and a sustainable growth, hence the need to bring “business and society back together” (Porter and Kramer, 2019, p. 328).

Porter and Kramer (2019, p.331) propose the principle of shared value, “policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates” (Porter and Kramer, 2019, p. 331).

The above principle is one of the postulates of BD, “an interaction that leads to mutual adaptation between corporations and society” (Steger, 2003, p. 7), plus when is mentioned that firms “have failed to grasp the importance of the broader business environment surrounding their major operations” (Porter and Kramer, 2019, p. 332), this is also advocated by BD, “manage the business environment systematically and professionally, to ensure that business is done smoothly” (Amann *et al.*, 2007, p. 34).

The final goal of shared value is to generate a positive never-ending cycle of prosperity between the business and the community where is established, from whom it depends and affects/is affected, which implies a new rethinking about business propositions, for example, create innovative products that prudently increased access to home ownership vs supporting home ownership trough a fund financed by the firm (Porter and Kramer, 2019).

In sum (and again), shared value principles are closely connected to BD as the first states that its starting point is to “identify all the societal needs, benefits, and harms that are or could be embodied in the firm’s products” (Porter and Kramer, 2019, p. 335), and the second also advocates “influencing economic and social actors to create and seize new business opportunities” (Saner *et al.*, 2000, p. 85).

Another view of BD makes a direct correlation to the internationalization process, as an “activity of interaction with the external environment in favour of the interests of the company (...) privately and also at the government level (...) as the main focus for the company designing its internationalization through the initiation or increase of export of their products, promoting him in the midst of international trade” (Fuhr and Paixão, 2009, pp. 10-11).

The current size and complexity of MNCs, according to Sarfati (2009), should drive their focus beyond the market, hence they need to “coordinate its market objectives with its objectives in relation to governments and the organized society” (Sarfati, 2009, p.1), perceived this way BD as a “multinational strategy to deal with all global corporate stakeholders” (Ibid, p. 12), which should address four basic elements: market, government, society and information, regarding both primary (e.g., marketing and operations) and support activities (e.g., human resources and infrastructures).

According to the view of Ordeix-Rigo and Duarte (2009) MNCs need to secure through BD a “status that goes beyond a license to operate” (Ordeix-Rigo and Duarte, 2009, p. 555), a need to “show their citizenship and their responsibility toward society” (Ibid, p. 556), hence the need to actively engage with society, a role beyond the classic dimension of generating products/services, employment and wealth, by creating institutions (e.g., foundations), granting support (e.g., sponsoring local social projects), all of this in an osmosis way and not in a unilateral process of the corporation towards society.

The emphasis on reputation is also highlighted by Demirdjian (2007), stating that this dimension in today’s global society can make or break a business, thus it is imperative for corporations to engage in a strategy that comprises the demands of the multiple stakeholders that constitute the market and affect the bottom line of the firm in order to survive, separating from its country’s image and employing their own separate diplomacy (BD).

The importance of managers in BD is also crucial following the need for an “mediating conflicts and advancing business interest by negotiating and forging networking with key players in the global market including government officers, religious and labor leaders, and influential non-governmental organizations” (Ali, 2009, p. 258), being the position in the international stage of the CEO of large MNCs equivalent today (and sometimes ever greater) than some government officials.

Following a growing number of local and international NGOs, international businesses are due to face significant demands and expectations so if “equipped with adequate diplomatic know-how, political foresightedness and social competence” (Saner *et al.*, 2000, p. 82), i.e., BD, they are able to better manage conflicts such as the case of the Shell Oil conflict in Nigeria or the Chinese investment in Myanmar (Mogensen, 2017).

BD not about crisis management but about crisis prevention because it aims to secure, in an early stage of engagement that “companies are intertwined with surrounding society” (Steger, 2003, p. 6), i.e., the business environment (governments, international organizations, NGOs, investors, customers, retailers, employees, unions, communities, media, regulators, activists, etc.).

But BD is not only about crisis prevention or crisis management, it aims first and foremost to leverage the firm ability to create new business opportunities (through international public and private agreements), to create social capital (addressing host countries needs and expectations), build networks of relationships (government bodies, international rule makers, etc.), aiming to ensure a sustainable, positive-sum and long-term favourable external environment to operate.

The performance of the MNCs are today deeply related to the ability of managing its business environment, perceiving this way a new form of social contract regarding businesses vis-à-vis society,

hence the need for “their own representational mechanisms to manage the complex relationships that mark today’s global system” (Muldoon, 2005, p. 341).

The IB field since its origins is deeply related to the need of supporting firms overcome the intrinsic challenges of doing business abroad and the concept BD is rooted in that specific concern. The evolution of the MNC status in IB and consequently the need for a growing emphasis on relationships, promoted the emergence of the concept of BD, so both areas are strongly interconnected.

In sum, BD represents a strategic management tool that enables the firm to manage the external environment in which it operates, regarding multiple actors (market and non-market related), that increasingly affects its ability to conduct business abroad (and consequently its overall performance), so is clear the need and relevance for the corporation to be equipped with a tool that enables it to manage this multifaceted and international set of challenges.

#### *Intervention mechanisms*

Following the above characterization and scope of BD is now essential to detail the tool in practice, i.e., the specific management mechanisms underlined in this concept in order to further ahead assess in what extent those instruments are used and are relevant, when adopted by the firm to overcome, manage and/or minimize the challenges previously identified of the internationalization process, thus ultimately, its level of usefulness/impact on the performance of the firm.

The intervention mechanisms of BD are summarized in Table 2, being all of them tools under its perceived role and scope, based upon an extensive literature review (Monteiro and Meneses, 2015) were all this tools were associated to the concept of BD, i.e., what it advocates and incorporates, being this assortment of instruments the portrait, in all its extension, of the full scope and add value of an effective practice of BD.

Table 2: Business Diplomacy

| Intervention Mechanisms  |
|--|
| Act in international forums  |
| Create a positive environment about the business and its impact on society |
| Create social capital, accumulate contacts and build social influence      |
| Creating alliances with key players in the global marketplace              |
| Engage with multiple stakeholders  |
| Enhances the adaptation process to other cultures                          |
| Increase transparency of decision-making                                   |
| Leveraging capabilities through economic diplomacy                         |
| Negotiate, promote long-term commitments, aim for win-win situations       |
| Protect the corporate brand and reputation                                 |

|   |
|---|
| Support a triple bottom line business culture |
|---|

Source: Monteiro and Meneses (2015)

The mechanisms mentioned in Table 2, following past empirical studies (e.g., Monteiro and Meneses, 2015, Saner and Yiu, 2005), can be more or less present/relevant (and differ depending on the sector or the firm).

Based on the list presented in Table 2, we can compile the BD mechanisms in the following main groups/subjects, and then detail each of them in terms of the goals proposed: Act in International Forums and take advantage of Economic Diplomacy; Adopt a Triple Bottom Line culture; Create Social Capital and Increase Transparency; Engage with Multiple Stakeholders; Enhance Culture Adaptation; Establish Alliances and Integrate Networks; Protect the Corporate Brand/Reputation.

Act in International Forums, concerns the ability of the firm to be present/represented at supra-national forums, such as the specialized agencies of the United Nations (World Intellectual Property Organization, International Labour Organization, etc.), but also public-private initiatives such as the World Economic Forum (Davos), where many of the rules, standards, etc. of IB are forged (e.g., Saner and Yiu, 2005, Sarfati, 2007).

Hence, it is imperative for firms (ex: through national/regional associations) to be present and thus be able to participate and give their input concerning the framework in which they will operate, that will have a critical impact on their international business's activities and thus performance.

The above dynamic, if possible, should be aligned with the Economic Diplomacy of the home state of the firm, i.e., concerted positions (public and private) in terms of the agenda regarding supra-national decisions where the state plays a major role in defining IB rules and standards with other parties (other states or supra-national bodies). For example, at the EU level, in the most assorted number of subjects (taxes, health and safety, competition, etc.), that will have a direct impact on the firm IB activities (Monteiro and Meneses, 2015).

The following group of BD mechanisms, Triple Bottom Line, i.e., the need for the firm to go "beyond the traditional measures of profits, return on investment, and shareholder value to include environmental and social dimensions." (Slaper and Hall, 2011, p.4), is naturally integrated in this field because it entitles the same grounded principles of BD (e.g., Muldoon, 2005, Saner and Yiu, 2005).

The environmental and social dimension comprehends the need to incorporate in the overall business strategy issues such, at the environmental, air and water quality, energy consumption, natural resources, etc., and regarding the social dimension is about (at the community or region level) education, access to social resources, health and well-being, quality of life, etc. (Slaper and Hall, 2011), being this dimension aligned with the co-evolution concept mentioned above between business and society (Amann *et al.*, 2007).

Another BD mechanism group is the need to Create Social Capital and Increase Transparency, and regarding the first is about the need for the firm, through effective actions in the field (ex: establish a foundation, support a charity institution), to gain the trust and confidence of its stakeholders, and in that process, build social capital (credits) to better manage the situations that will come along concerning their doubts, fears, suspicious, etc. (e.g., Ali, 2009, Ordeix-Rigo and Duarte, 2009).

Regarding Increase Transparency concerns the importance for the firm to state its goals and road-map to achieve them, to be clear and open with all the stakeholders that will be affected (directly and indirectly) by the firm plan of action, otherwise it will be perceived (by default) as a position of misleading that will inevitably and with unforeseeable negative consequences will affect its overall performance following a negative reaction of its stakeholders (e.g., Ordeix-Rigo and Duarte, 2009, Steger, 2006).

One of the forms to increase transparency is to have in place a communication plan to address some basic questions/natural concerns of the local actors such as: who is this firm?, why is it here?, how its presence will affect my life and of the community?

Another BD mechanism group is the imperative need to Engage with Multiple Stakeholders, i.e., to build a stakeholder's map (business and non-business related) that directly and indirectly will be affected by the firm business activity, identifying their concerns and expectations, and based on that assessment, be proactive in engaging with them, aiming to generate the best possible operation environment for the firm to operate, that at the same time will not condition the full potential of the firm and have all the stakeholder's concerns and expectations addressed (e.g., Ali, 2009, Amann *et al.*, 2007).

The following mechanism of BD is Enhance Culture Adaptation, the need for the firm to take in consideration the culture were its conducting its business and that is crucial to adapt its positioning (Saner and Yiu, 2003), because it cannot simply replicate the approach from own cultural context to another, hence the need for adaptations, i.e., to tailor the response/message to the receiver in each case taking in consideration different cultural frameworks from one location/country to another (Hofstede, 1991). If the firm does not take this singularity in consideration it takes the risks of the message be misinterpreted and subsequently result in some sort of losses, jeopardizing this way the goal of a good relationship with all its stakeholders.

The following BD mechanism group is about Establishing Alliances and Integrate Networks, and regarding the first is about identifying and then establish key partnerships aiming a positive sum and long-term relationships, in order to more efficiently, take advantage of the existing structures/organizations (e.g., Muldoon, 2005, Watkins, 2007), being this dimension related to the concept mentioned above of shared value between (Porter and Kramer, 2019).

The need to Integrate Networks, i.e., the insidership status, is a key condition in order to prevent one of the key liabilities of the internationalization process (Liability of Outsidership), being the goal to have mutual benefit network relationships, alongside on the most add value condition of belonging to the network: to share and access knowledge of several parties that otherwise would take a long time and would be very expensive, and in some cases, even unreachable (e.g., Hohenthal *et al.*, 2014, Vahlne and Johanson, 2013).

The last BD mechanism group is Protect the Corporate Brand/Reputation, being this a growing challenge/risk for MNCs to manage due to condition mentioned before that businesses operate in a “goldfish bowl transparency” (Steger, 2003, p. 6), where the scrutiny is constant and able to be conducted by anyone (nevertheless a more professional approach by NGOs and Media at large). Hence the work, of decades sometimes, can vanish in a split second with a post on social media regarding a misconduct of the firm, anywhere and at any time in the world (e.g., Demirdjian, 2007, Eskew, 2006). Thus, in order to minimize these risks, is crucial for the firm to have in place strong and fast replay mechanisms to prevent this exposure and at the same time to react to campaigns that aim to jeopardize (unfairly) its brand and reputation.

In sum, BD embodies much more than first (wrong) perception of some new arrangement (old wine, new bottle) of stakeholder management. It embodies that dimension alongside others (cf. Table 2), being its distinctive attribute the proactive strategic management mindset in relation to all actors (related and on related to the market), at local, regional, national and supranational level (political, economic, social, etc.), aiming to secure (by adapting, changing, etc.) the best business environment framework where it operates, in order to reach its full potential, free from any sort or form of shackles that can prevent the firm of accomplishing its goals.

## CONCLUSION

Despite all the developments in the IB environment in the last decades and advances in the theoretical frameworks and business practices regarding the challenge of internationalization process, a condition remains unchanged: firms, when engaging with foreign markets, continue to face significant specific and inherent challenges (maybe even greater today than in the past).

IB today happens in a complex and global business environment, driven by globalization, but substantial differences remain (institutional frameworks, social conditions, cultural values, etc.), hence the advent of BD, that aims to ensure the best (sustainable and long-term) business framework in each and every geography where it conduct its business.

BD presents itself as a set of actions undertaken by firms, when dealing with their foreign surrounding environment, concerning multiple actors, market and non-market related, aiming to overcome the

intrinsic business constraints of doing business across the border, presenting thus as a strategic management mind-set.

In this paper is clear the distinctive nature of this concept and its importance for firms to overcome the intrinsic challenges of doing business abroad, grounded on the concepts of co-evolution and shared value between the firm and its environment that characterizes the XXI century economy.

In sum, the firm can no longer rely only on the best price or product in order to be successful, i.e., solely on market dimensions, they need to incorporate non-market dimensions in their overall strategy in order to be able to address the multiple actors that constitute the environment in which they operate and that increasingly affect their performance, thus the need for their own representational mechanisms: Business Diplomacy.

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## BRAND LOVE, EWOM AND RELATIONSHIP MARKETING: AN EMPIRICAL STUDY

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### ABSTRACT

The main goal of this study is to analyze the impact of brand love in eWOM and relationship marketing using social media as an interaction tool. Due to the large competition in the nowadays market, business needs to bet on differentiation to influence the clients to choose their brand. Thus, the elaboration of this research was made a theoretical study of the existing literature about Relationship Marketing, Brand Love, eWOM and social media. The empirical study was made using MaduGYM as a case study through a quantitative approach. The research instrument used was a questionnaire that contained 33 questions with a Cronbach's alpha value of 0.925 the target audience were the customers of MaduGYM. Data were analyzed using the quantitative methodology of structural equations using Partial Least Squares. The results obtained by the research shows that in the perception of customers of the MaduGYM brand love can influence positively the eWOM and relationship marketing strategies using social media as an interaction tool.

*Keywords: Brand love, e-WOM, communication, relationship marketing, social media.*

### INTRODUCTION

This study aims to analyze the impact of brand love in eWOM and relationship marketing using social media as an interaction tool.

Authors as Gracia, Ariño, and Blasco (2013), Reichheld (2000), Sondoh (2007) and Wijwaya (2020) presented the importance of the concept of the brand, brand loyalty and brand equity in the Relationship Marketing, but as Carrol and Ahuvia (2006) defends, Brand Love is a presage of happiness for the brand, which means that exist many customers that are loyal to the brand but don't have a feeling of love for them. We can say that loyalty can be one of the results of love for the brand, but it is not exclusive. Having this in mind, it's proposed in this research to go further, and instead of studying the effect of brand loyalty and brand equity, study the impact of brand love on relationship marketing and how brand love may have result in brand trust and brand equity.

Clark and Melancon (2013), Filipek (2019), Lipsman (2011), Rozwell (2010) are some authors that studied the impact that concepts as word-of-mouth and social media has in the relationship marketing, with the increase of the utilization of the social media in the customers and organizations day-to-day, eWOM as the result of the junction between word-of-mouth and social media (Jeong & Koo, 2015) is an important concept to study for the development of relationship marketing strategies drive to the online impact using social media as a tool to this development.

An evidence-based approach is necessary to explain the way that E-WOM influences the ability of the customer to trust and be loyal to a company, developing a feeling of love for a brand. As a result of that commitment, dedicated customers can become increasingly spokesperson or brand representatives (Fullerton, 2005 apud Gonçalves, 2019) what makes a customer easier and cheaper to maintain. Batra, Ahuvia, & Bagozzi (2012) defends that brand love is more inclusive and can more easily predict brand loyalty and business outcomes.

Batra, Ahuvia, and Bagozzi (2012) defend that is needed more research about how the components already identified of brand love can interact between them, Wijawa et al. (2020) suggests the development of research involving marketing variables to identify the effects of relationship marketing on the long-term sustainability, Rodrigues (2012) identifies the need of the study of the impact of social media platforms as Facebook in other marketing fields, Erkan and Evans (2016) suggests the study of the eWOM impact in anonymous platforms directed to a group that includes people of different ages that can have a different perspective of the use of social media and Gracia et al. (2013) defends that is needed the development of more research focused in the study of the relation between eWOM and relationship marketing from a customer perspective to be able to identify the importance of virtual environments for the client.

Having in count the suggestions of the previously mentioned authors and the gaps founded in the previous literature was identified the following research question: *How brand love positive enhances the results of eWOM and relationship marketing?*

## **THEORETICAL FRAMEWORK**

### **Brand love**

The first step to understanding what is brand love and how it's a different concept from the other types of brand emotions is to understand the concept of love that costumers use when they say that is in love with a specific brand or product (Fehr, 2006; Shaver et al., 1987), for that, it will be defined the different types of brand emotions during this chapter, also it will be studied how they connect between them.

According to Schultz, Barnes, and Azzaro (2015), brands are the primary connectors between the customer and the organization and the key ingredient for developing successful relationships between them. The brand represents a guarantee of quality, origin, and performance, and therefore increases the perceived value of the consumer and reduces the risk and complexity that are integral to the purchase decision (Blackett, 2004).

Mindrut, Manolica, & Roman (2015), affirms that without the brand, the product or service loses some meaning because it cannot be associated with what affects the purchasing process. The most important marketing function is brand building, consumers are directly confronted with brand products, and purchase the product or service depends on that, and it's because of that marketing makes purchasing decisions much ahead of the actual exchange. A decision of purchase or not a product or service will be made by prior positioning of the product brand itself in the customer's mind (Bačevac et al., 2019).

#### Electronic word-of-mouth (eWOM)

Nowadays electronic word-of-mouth (eWOM) is considered an influential marketing instrument (Bickart & Schindler, 2001; Kumar & Benbasat, 2006; Zhang, Craciun, & Shin, 2010) and can be considered as the evolution of traditional word-of-mouth with the development of the online word. The junction between WOM communication and social media networks have "*altered this face-to-face communication into computer-mediated WOM communication*" (Jeong & Koo, 2015, p. 2).

Electronic Word-of-Mouth (eWOM) can be defined as any positive or negative communication or observation made by the customers, the potential, actual or former customers, about the elements of the brand, as the product and name of the company, which will be available in the social media where the individual persons and organizations can see (Hennig-Thurau et al., 2004, p 39) due to (1) an elevated quantity, (2) distribution, (3) perseverance and visibility, (4) anonymousness and duplicity, (5) prominence of attitude, and (6) public commitment (King et al., 2014). Hu and Ha (2015), categorize eWOM into four different categories based on the difference of functions and communication forums: (1) specialized eWOM - refers to customer reviews posted on the comparison-shopping or rating websites which do not engage in product selling, (2) affiliated eWOM - refers to customer reviews affiliated with retail websites, (3) social eWOM - indicating any information related to brands/products exchanged among the users of social networking sites and (4) miscellaneous eWOM - which includes brand/product information exchanged on other online social media platforms such as blogs and discussion boards.

The opinion of the consumers that usually manifest their opinions and reviews using eWOM is more likely to be taken into account by their pairs (Bhandari & Rodgers, 2018). because "a negative or

positive attitude toward the product or service will influence customers' future purchase intentions by allowing them to compare the product or service's actual performance with their expectations" (Yang, 2017). These costumers also gain confidence in their knowledge about the products which consequently allows them to make better and more informed purchases (Bronner & Hoog 2011; Cheng & Loi 2014; Goldsmith & Horowitz 2006; Hennig-Thurau & Walsh 2003). That is why most of the organizations use electronic word-of-mouth (eWOM) as a tool to simulate present and/or future sales, despite the difficulty of successfully manage and elevate costs (Elliott et al., 2012).

### *Relationship marketing*

Relationship marketing can be defined as a strategy to lure, recognize, maintain, and enhance customer relationships to create consumer value through marketing activities (Cheng & Lee, 2011; Wijaya et al., 2020) and also is the understanding that the company needs to improve business process, communication, technology, and human resources maintaining business strategy and costumers focus (Tjiptono et al., 2006). Thus, by increases success in marketing and its products and/or services and, consequently, achieving customer loyalty (Aroeira, Dantas & Gosling, 2016). Antunes and Rita (2008, in Mendes, 2019) present the following pillars for the creation of relationship marketing: (1) the relationship: marketing must be focused on creating, maintaining and developing customer relations, (2) the interactivity of the parties: the relationship between organization/customer for delivery and creation of both parties requires a strengthening of emotional ties, namely, the communication between the two and (3) the long term: to create, maintain, and develop the relationships of both is necessary time (time-space).

Engaging in a long-term relationship with customers, allows marketers to have a clear view of customer segmentation and therefore program differentiation to match the potential revenue with service offerings by decreasing customer defection rate. Learning more about customer's needs is essential to achieve better customization of products and services. Furthermore, establishing permanent relationships with customers can help organizations maintain customer retention - that is less costly than acquiring new ones - repetitive purchase behavior, loyalty programs focus on customer's that results in generating revenue for an extended period (Rust, Moorman & Dickson, 2002; Hennig-Thurau et al., 2006; NG, 2010).

In fact, according to Odabasi (2013), the advantages of relationship marketing can be summarized in three main variables that are used to measure company performance about the level of customer satisfaction: commitment, empathy, reciprocity, and trust: (a) the advantages resulted from close relations formed and carried out with costumers, (b) the advantages derived from the improvements

in customer satisfaction that could come out from the practice's relationship marketing and (c) financial benefits that relationship marketing can provide for organizations;

### *Hypotheses derivation*

Electronic word-of-mouth (eWOM) is considered an influential marketing instrument (Bickart & Schindler, 2001; Kumar & Benbasat, 2006; Zhang, Craciun, & Shin, 2010) because offers a way to identify consumers' needs and perceptions and even a cost-effective in a way to communicate with them (Nieto et al., 2014) by changing their costumers' behaviors. It's considered as an evolution of traditional word-of-mouth with the use of social media as an interaction tool. This happens because social media helps to influence more customers and allows unlimited interactions, given the customer the opportunity of becoming a co-creator of publicity and have the ability of reach a large number of customers and potential customers right away and having in count the interests of the customers (Filipek, 2019). Brand Love is defined as the level of emotional connection that a satisfied customer feels about the name or product of a specific brand (Ahuvia, 2005) and this can be developed through the use of eWOM strategies. The fact that Brand Love positively influences Word-of-Mouth shows that when a customer has an emotional connection to a brand, it is expected that they will pass on their experience positively (Carroll & Ahuvia, 2006). Thus, the first hypothesis is presented:

H1: Brand love has a positive impact on eWOM.

Relationship Marketing can be defined as the understanding of the client has a central element in the way companies run their business (Almeida & Pereira, 2014), and the retention and customer loyalty are an increasing priority for the companies. This leads the companies to invest in getting to know the customer better to conquer their loyalty (Palmatier, 2008). According to Carroll and Ahuvia (2006), Brand Love has a strong focus affective. Brand Love had an impact on consumer loyalty to the brand and in the will to pay a premium price for their products (Park, et al., 2006). Also, and as a result of that commitment, dedicated customers can become increasingly spokesperson or brand representatives (Fullterton, 2005). Thus, the second hypothesis is presented:

H2: Brand love has a positive impact on relationship marketing.

## **METHOD**

### *Data collection plan*

To be able to answer the proposed hypotheses the instruments of research chosen have as a base a methodology that the customers will be able to answer at distance and that possibility several persons answering at the same time. The solution obtained was the questionnaires structured in the online

platform Google Forms directed to the sample of customers of the gymnasium. It will be used scales to structure the questionnaire with 4 main groups: general information, brand love, eWOM, and social media and it will be shared in the Facebook platform used by the staff of the gymnasium and the customers.

The instrument chosen was the questionnaire survey, in the sense that no variable was manipulated and all data related to the variables were collected at the same time (Bryman & Cramer, 2012).

Thus, the main advantages pointed to this method are: 1) it allows the collection of large amounts of data, and, since they are standardized, it facilitates the comparison between them and 2) it allows the generalization of the sample results to the population. However, this method is not without its drawback: 1) weight and cost; 2) the superficiality of the answers due to the standardization of the questions; 3) individualization leads to a loss of social relationships among respondents; and 4) the difficulty in controlling the response time, which often admits delays in the investigation process (Campenhoudt & Quivy, 2008).

#### *Measures and instrument*

This study uses well-validated scales from previous studies to operationalize the key constructs and adapted them to the particular context of our empirical setting.

*Independent variable* – Brand love's construct was assessed by Carroll and Ahuvia's (2006) scale.

*Dependent variables* – (1) eWOM was measured using Gracia, Ariño & Blasco (2013) and Harrison-Walker (2001) scales. Concerning relationship marketing, commitment's dimension was measured by Meyer and Allen's (1997) scale, trust by Lopes and Nohara's (2009) scale, satisfaction by Aaker (1996), Oliver (2014) and Seithaml et al.'s (2014) scales and, finally, relationship by Reichheld and Sasser (1990), Hutz and Souza (1998), Kotler (2000), Sheth and Parvatiyar (2000) and Zineldin's (2006) scales.

The questionnaire is composed by 4 main groups and 33 closed questions where it measures the degree of love felt by brands through 33 questions, using a rating scale from 1 to 7 (1 – strongly disagree; 7 – strongly agree).

This survey was carried out through the Google Forms platform, an online platform that allows the preparation of documents, such as surveys, their sharing, and dissemination, as well as monitoring the evolution of the data. The survey was online from April 21, 2020, until May, 4, 2020.

## RESULTS

### *Partial least squares*

The structural equation model is designated as a multiple regression method to establish relationships between variables (Marôco, 2010), with a minimum relational value of 0.7 to ensure that it is greater than the error variance (Carmines & Zeller, 1979).

Through the stability and internal consistency based on Cronbach's alpha, the reliability of the variables used in the investigation is calculated, with a minimum required level of 0.7 (Nunnally, 1978; Chin, 2010).

In the present study, Cronbach's Alpha levels were reached between 0.880 and 0.941, as shown in Table 1, which is considered very good and excellent (Pestana & Gageiro, 2008).

| Constructs             | Cronbach' Alpha | p values |
|------------------------|-----------------|----------|
| Brand love             | .880            | .000     |
| Relationship marketing | .911            | .000     |
| eWOM                   | .941            | .000     |

Table 13. *Cronbach's alpha of multidimensional variables*

The reliability coefficient was also used to test construction validity (Chin, 1998). As can be seen in Table 2, using the parameters of Gefen & Straub (2005) that defend a minimum level of 0.6, the variables exponentially exceed the reference value.

| Constructs             | Composite reliability | p values |
|------------------------|-----------------------|----------|
| Brand love             | .933                  | .000     |
| Relationship marketing | .930                  | .000     |
| eWOM                   | .958                  | .000     |

Table 2. *Composed reliability of multidimensional variables ( $\rho_c$ )*

In this test, both the analysis of convergent validity is carried out, where the indicators represent only one construction (Reinartz et al., 2009), as well as the discriminant validity.

In the present research study, the method proposed by Fornell and Lacker (1981) was used, which proposes the use of the average variance extracted (AVE) with a minimum value of 0.5 to prove convergent validity. As it is possible to observe in the next table, only the positioning did not obtain the required value.

| Constructs             | AVE  | p values |
|------------------------|------|----------|
| Brand love             | .682 | .000     |
| Relationship marketing | .508 | .000     |
| eWOM                   | .849 | .000     |

Table 3. *Convergent validity of the model*

The discriminating validity is determined by construction and is related to the level at which it differs and stands out from the rest of the model's constructions, making it necessary therefore the lack of correlations with other latent variables.

It can be gauged through the principle that all cross loads cannot be higher than a load of each indicator. On the other hand, the Fornell – Larcker (1981) criterion defends that it must be AVE that must be superior to the variance between the constructions of the same model.

Referring to the separation of Chin's explanatory power (1998) between moderate and substantial, it is possible to observe in Table 4 that satisfactory results were obtained regarding the validity of discrimination and, consequently, that the constructions are significantly different.

| Fornell-Larcker Criterion | Brand love | Relationship marketing | eWOM |
|---------------------------|------------|------------------------|------|
| Brand love                | .826       |                        |      |
| Relationship marketing    | .717       | .713                   |      |
| eWOM                      | .681       | .585                   | .922 |

Table 4. *Discriminant validity of the model*

According to Table 5, only two hypotheses were not significant according to Chin (1998) who defend a minimum structural coefficient of 0.2. The bootstrapping technique was used to calculate the relative strength of each exogenous construction.

| Hypotheses       | Original Sample (O) | Sample Mean (M) | Standard Error (STERR) | T Statistics ( O/STERR ) | p values | Results   |
|------------------|---------------------|-----------------|------------------------|--------------------------|----------|-----------|
| H1: BL --> +RM   | .717                | .732            | .050                   | 14.355                   | .000*    | Supported |
| H2: BL --> +eWOM | .681                | .685            | .060                   | 11.322                   | .000*    | Supported |

Legend:

BL – Brand love; eWOM – Electronic word-of-mouth; RM – Relationship marketing.

\*  $p < 0.001$ .

\*\*  $p < 0.05$ .

\*\*\* not significant

Table 5. *Effects of path coefficients*

In the following figure, it is possible to observe the final structural research model, taking into account the direct effects.

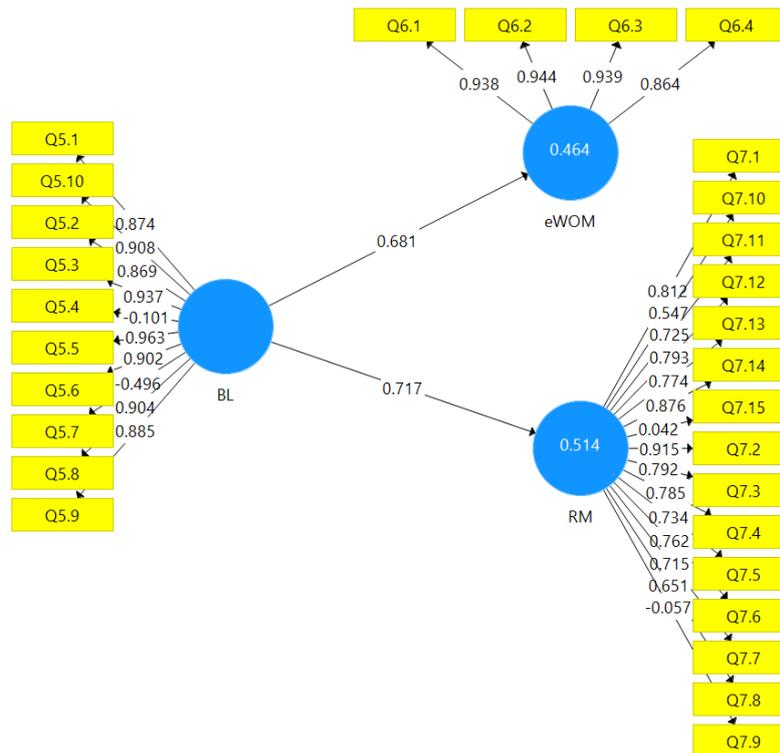


Figure 1. *Structural research model*

## DISCUSSION

The proposed operational research model included three constructs: (1) Brand love, (2) eWOM, and 3) Relationship marketing. The following hypotheses of the investigation were tested:

*H1: Brand love has a positive impact on eWOM.*

The results show the positive impact of brand love on eWOM and therefore this hypothesis is supported, to agree with the proposed studies (Carroll and Ahuvia, 2006; Filipek, 2019; Kudeshia et al., 2016). According to Carroll and Ahuvia (2006), Brand Love positively influences Word-of-Mouth which shows that when a customer has an emotional connection to a brand, it is expected that they will pass on their experience positively. With the use of social media as an interaction tool this transmission of satisfaction can influence more customers and allows unlimited interactions between the customers what shows to be an advantage for the organizations (Filipek, 2019). Also, according to Kudeshia et al. (2016), the relationship between brand love and eWOM has a strong positive connotation. This was supported by the results obtained through the data gathering which means that it's possible to confirm the veracity of the first hypothesis.

The hypothesis of being accepted demonstrates that companies can develop more efficient eWOM strategies if customers feel love for the brand.

*H2: Brand love has a positive impact on relationship marketing.*

The second hypothesis was validated to verify the influence of brand love in relationship marketing with the understanding of the customer as a central element in the way organizations run their business, this leads to the need to understand better the needs of the customers with the goal of conquest the love of the client, that will have an impact on the behavior of the client before the brand (Almeida and Pereira, 2014; Palmatier, 2008; Park, et al, 2006). However, it had a few studies that support the positive impact of Brand Love in Relationship Marketing, instead, the literature review for the impact of brand equity, brand loyalty and brand trust in relationship marketing are extensive (Aaker, 1996; Kanti, 2014; Reichheld, 1994; Rundle-Thiele et al., 2001; Sondoh et al., 2007; Wijawa, 2020) but as Batra, Ahuvia and Baggozi (2012) and Carroll and Ahuvia (2006) defends, brand love compared with other consumer brand relationship constructs, is more inclusive and can more easily predict brand loyalty and business outcomes, which leads to a better understanding by organizations, of the real needs of customers.

## CONCLUSIONS

Nowadays, there is an increasing interest in the subject and in the practice of physical activity that is increasingly part of the daily lives of individuals in our society. According to Calmeiro and Matos (2004), physical activity is considered a health behavior in which its regular practice is directly linked to the prevention of diseases, namely cardiovascular diseases, obesity, hypertension, diabetes, colon cancer, and osteoporosis. In fact, and according to the same authors, the practice of regular physical activity also presents psychological benefits in addition to physical ones, such as, for example, the reduction of the state of anxiety and mild depression, and its beneficial emotional effects are evident in all ages and genders.

In the digital environment it is possible to identify the existence of a fitness generation and a new trend in wellness. They are people who are concerned with body aesthetics, food, and mind. With the increase in the competitiveness of the fitness and wellness sector, the importance of devising strategies to avoid the loss of customers increases, since obtaining new customers causes high costs for companies. Their retention and loyalty may be essential at a financial level in the medium and long term for the company. With this increase in demand until today, it is up to the gyms and health clubs to adapt their responses with the objective of customer satisfaction, retention, and loyalty (Caldeira, 2006a).

To be able to achieve these goals, Brand Love, considered as the level of emotional connection that a satisfied customer feels about the name or product of a specific brand (Ahuvia, 2005) associated with

eWOM and relationship marketing strategies, allows organizations to act and respond in the best way to emerging issues such as customer satisfaction and loyalty.

Relationship marketing can be defined as a strategy to lure, recognize, *maintain, and enhance customer relationships to create consumer value through marketing activities* (Cheng & Lee, 2011 cited by Wijaya et al., 2020) and is the understanding that learning more about customer's needs, is essential to achieve better customization of products and services. The success of relationship marketing will make consumers trust in the organization. This condition encourages a good and loyal relationship between the organization and the customers (Wijawa et al., 2020). Electronic word-of-mouth (eWOM) is considered an influential marketing instrument (Bickart & Schindler, 2001; Kumar & Benbasat, 2006; Zhang, Craciun, & Shin, 2010) because offers a way to identify consumers' needs and perceptions and even a cost-effective in a way to communicate with them (Nieto et al., 2014) by changing their costumers' behaviors.

The eWOM and relational marketing strategies influenced by Brand Love can impact more customers if the organizations use Social Media as an interaction tool. This because it's used to build relationships with the consumers, create communities, distribute content, collect feedback from customers and support their brand (Michaelidou, Simagka, & Christodoulides, 2011) what helps to enhance the customer relationship. Unlike the traditional strategies of marketing, social media, allows unlimited interactions, given the customer the opportunity of becoming a co-creator of publicity and have the ability of reach a large number of customers and potential customers right away and having in count the interests of the customers (Filipek, 2019).

The quantitative study carried out during this work is limited to the study of a specific gym, MaduGYM to obtain a non-probabilistic sample for convenience. In this way, it was possible to analyze the impact of brand love on relationship marketing and eWOM strategies in this organization in particular.

Thus, we can identify the theoretical implication of this work as the validation of the importance of organizations keeping in mind the use of brand love, eWOM, and relationship marketing by supporting the previously developed literature and the results presented.

The implications that this study has brought to practice are the way the company will put into practice, marketing management strategies with customers as the target, keeping in mind the studied concepts of brand love, eWOM, and relationship marketing.

Some suggestions for the company will be to keep in mind a greater concern for customer loyalty that it already has instead of the concern of acquiring new customers. This way you will have more customers available to pay a premium price, and the customers will be the promoters of the company.

However, we can say that the limitations of this study are the sample size, the non-probable sample for convenience, the reduced time to develop the study due to meeting deadlines, and the little literature review found on the relationship of the study variables.

For future lines of investigation, I advise the application of this study in all gymnasiums to obtain a probabilistic sample.

Bearing in mind the scarce literature review on the subject, I advise the development of more studies related to other types of organizations, both in terms of services and products.

Over the past few decades, we have seen a variation in the needs and wants of customers, and even in the way the company relates to them. The formal and impersonal relationship was in the past, replaced by a more informal and personal relationship. To be able to apply the same, brand love, eWOM, and relationship marketing are current concepts that organizations must keep in mind to be able to keep up with the evolution of the times.

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## CSR STRATEGIES AND STAKEHOLDER ENGAGEMENT IN ITALIAN FOOTBALL CLUBS

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### ABSTRACT

The paper aims to provide the groundwork for an investigation on corporate social responsibility (CSR) strategies in Italian Football clubs, focusing specifically on the kind of strategies they are implementing to engage with specific stakeholder groups. Accordingly, the purpose of the paper was to identify: 1) CSR implementation and communication strategies in Italian professional sport clubs; 2) the tools and methods used to engage with stakeholders.

We used qualitative and quantitative data on the CSR strategies and stakeholder engagement policies of 20 professional Italian football clubs that took part in the 2017-2018 and 2018-2019 seasons. We first analysed social engagement communication in general and successively investigated the implementation of associated actions. We collected data from the official websites of the clubs and from official reports' content analysis. The results confirmed previous studies (Picariello and Trendafilova, 2013) where it was argued that CSR policies in Serie A lacked a specific structure. In terms of implementation, we came across few and random social initiatives. CSR communication analysis was essential in identifying distinctive types of stakeholder engagement policies and practices. Although a large part of Italian football clubs continued to show unwillingness in adopting social policies, the few that set out CSR strategies and stakeholder engagement policies acknowledged the strategic and organizational relevance of such action, contributing to improving reputation as well as the trust of fans and other stakeholders. The study represents an initial overview of stakeholder engagement and communication in Italian professional sport.

*Keywords: Stakeholder engagement, CSR strategies, sports management, sports organization*

### INTRODUCTION

Our study aimed at providing the groundwork for the investigation of Corporate Social Responsibility (CSR) strategies in Italian Football clubs, specifically focusing on the kind of strategies that have been implemented to engage with specific categories of stakeholders. Accordingly, the purpose was to identify: 1) CSR implementation and communication strategies in Italian professional sport clubs; 2) the tools and methods used for stakeholder engagement.

There has been a growing interest for Corporate Social Responsibility (CSR) in the area of sports management (Godfrey *et al.*, 2009; Bradish and Cronin, 2009; Babiak and Wolfe, 2009; Paramio-Salcines *et al.*, 2013; Walzel and Robertson, 2016) due to its increasing importance for many sports clubs. Indeed, CSR has become essential for the enhancement and diffusion of brands (Blumrodt *et al.*, 2012; Hur *et al.*, 2014; Baena, 2018), and the development and strengthening of fan loyalty (Walters and Tacon, 2010), just to cite a few examples. A brief review of related literature suggested that CSR policies affected different areas and subjects. CSR activities benefitted internal organization, by developing a strong sense of community (Bradish and Cronin, 2009); the local communities, through direct engagement (Mynard *et al.*, 2009; Banda and Gultresa, 2015; Trendafilova *et al.*, 2014); the environment, by promoting the diffusion of environmental management initiatives (Babiak and Trendafilova, 2011; Trendafilova *et al.*, 2014; McCullough and Kellison, 2016); governance, by adopting CSR tools aimed at promoting accountability and transparency (Senaux, 2008; Hamil *et al.*, 2010; Walters and Hamil, 2013; Kolyperas *et al.*, 2015). Literature showed that CSR was strictly related to how an organization interacted with a wide range of stakeholders (Carroll, 1991; Wood, 2010). Consequently, a key consideration in the context of CSR was understanding how to manage stakeholders and engage with them.

## **CSR AND STAKEHOLDER ENGAGEMENT IN SPORTS ORGANIZATIONS AND FOOTBALL CLUBS**

Dealing with CSR issues has become an essential requirement for sports organizations. Most sports clubs that focused on CSR matters – those that were to some extent more diligent and foresighted – eventually adopted specific CSR strategies and policies.

CSR and stakeholder management were considered as strictly associated to each other. Stakeholder identification, engagement and involvement were identified as the three key aspects of stakeholder management (Low and Cowton, 2004). More specifically, stakeholder engagement mainly focused on how organizations communicated and entered into dialogue with stakeholder groups. Research showed this kind of engagement did not grant stakeholders decision-making powers. Stakeholders were not allowed to engage in any form of decision-making but only allowed to exert some form of influence on the organization.

Several studies focused on the relationship between stakeholders and social responsibility in sport organizations. For instance, Breitbarth and Harris (2008) analysed different types of sports organizations: professional football leagues and football clubs, sporting federations in England, Germany, Japan and the United States. The study highlighted a conceptual model to create value, financial, cultural, human (e.g., for NGOs), and in terms of reassurance (Breitbarth and Harris, 2008).

Walker and Kent (2009) showed the relationship between CSR and the fans' perception of its relevance. The conceptual model was based on four CSR issues: philanthropy, community engagement, youth education and health. Results showed how CSR affected reputation and fan consumer behaviour. CSR thus emerged as an integral part of the corporate mission and properly communicated. Previous studies analysed the concepts of corporate social responsibility, responsiveness and citizenship in relation with the activities reported by organizations in the sports industry. Walker and Parent (2010) analysed the websites of nearly 100 sport entities to provide both typicality and systematic variety of teams, leagues, and organizations to reveal general social involvement practices in the industry. They concluded that social involvement varied considerably in the sport industry and that such variation could be partially explained by geographical reach, stakeholder influences, and the business operations pursued by the organizations (Walker and Parent, 2010). Walker *et al.* (2010) highlighted the importance of the Internet as a new means for organizations to communicate with their stakeholders. For this reason, messages dedicated to ethical, environmental, and other social initiatives have increased in popularity. The study analysed CSR-related content distributed by teams to their stakeholders. Despite adopting different approaches to CSR, the results showed that many of the teams' communication strategies were similar in terms of content, self-reference, stakeholder issues and message orientation (Walker *et al.*, 2010).

More specifically, interest in CSR and stakeholder management within football clubs has grown rapidly in recent years. Most of the studies were dealt with British clubs (Michie and Oughton, 2005; Walters and Chadwick, 2009; Walters and Tacon, 2010; Walters, 2011; Healy and McDonagh, 2013; Morrow, 2013); French clubs (Cicut *et al.*, 2017; Senaux, 2004, 2008) and Turkish (Sarıkaya *et al.*, 2012) clubs; or on a wider selection of European (Walters and Tacon, 2013) or World clubs (Breitbarth and Harris, 2008). As Cicut *et al.* (2017) pointed out, several studies focused in identifying the clubs' stakeholder groups (Boon, 2000). Some scholars showed that key stakeholder groups defined the action of managers (Senaux, 2008). For this reason, researchers have focused their attention on the management of clubs either from the point of view of governance (Michie and Oughton, 2005) or, more specifically, by investigating specific stakeholders groups (Healy and McDonagh, 2013) or by dealing with a specific questions associated with social responsibility (Breitbarth and Harris, 2008; Walters and Chadwick, 2009; Walters and Tacon, 2010). Other research dealt with such topics as the construction of stadiums (Walters, 2011), market value volatility of clubs (Sarıkaya *et al.*, 2012) or information disclosure to stakeholders (Morrow, 2013). Walters and Tacon (2010) closely linked the concept of social responsibility to stakeholder management strategies in the UK football industry. The authors scrutinised the actions and responses of organizations as well as stakeholders, identifying the most important categories among them. A study on Charlton Athletic and Brentford revealed that the

football clubs by establishing a charitable structure involving socially responsible activities in the areas of health, education, social inclusion and community integration produced specific advantages, including the easing of community tensions, improved reputation management and brand building, besides a better relationship with the local authorities (Walters and Chadwick, 2009). This showed that football clubs could establish stronger commercial partnerships and stronger player identification through the implementation of citizenship-orientated activities by implementing a stakeholder engagement model based on the creation of a community trust model of governance.

In short, CSR research showed that sports clubs, especially football clubs, needed to expand the role of stakeholders in corporate CSR processes if they wanted to improve their efforts to build legitimacy, a positive reputation and lasting stakeholder relationships (Morsing and Schultz, 2006). Additionally, stakeholder engagement represented a way to improving the effectiveness of an organization and to creating (social) value.

## RESEARCH METHOD

Our study investigated how Italian Serie A football clubs implemented and communicated CSR policies and engaged with stakeholders (e.g., general public and fans), during the 2017-2018 and 2018-2019 seasons, by using the Francois *et al.* (2019) framework.

The 20 Serie A clubs were divided into four groups: alfa (A), beta (B), gamma (Γ) and delta (Δ). Clusters were set in relation to the average final positioning of each club in the last five seasons (from 2014-2015 to 2018-2019) and a score from 1 to 20 was assigned to each club. As reference, we considered the final position of clubs in each championship. These were added up and the result divided by the number of clubs participating in Serie A from the 2014-2015 to the 2018-2019 season. Final ranking was divided into four groups, each one consisting of five clubs:

- Group A: from the 1st to the 5th positions,
- Group B: from the 6th to the 10th positions,
- Group Γ: from the 11th to 15th positions,
- Group Δ: from the 16th to 20th positions.

The groups have been listed in Table 1.

| A                 |     | B              |     | Γ               |      | Δ                |       |
|-------------------|-----|----------------|-----|-----------------|------|------------------|-------|
| Juventus FC       | 1   | AC Milan       | 6.8 | US Sassuolo     | 10.4 | Cagliari Calcio  | 15    |
| Napoli SSC        | 2.8 | ACF Fiorentina | 8.2 | Bologna FC      | 13.5 | S.P.A.L.         | 15    |
| AS Roma           | 3.2 | US Sampdoria   | 8.2 | Genoa CFC       | 12.4 | Empoli FC        | 15.25 |
| FC Internazionale | 5.4 | Atalanta BC    | 8.8 | AS ChievoVerona | 14   | Parma Calcio     | 17    |
| SS Lazio          | 5.8 | Torino FC      | 9.2 | Udinese Calcio  | 14.4 | Frosinone Calcio | 19    |

Table 1. *Serie A clubs by groups and average positioning (from 2014-2015 to 2018-2019)*

### Data collection

Data was collected from the clubs' official websites (Breitbarth and Harris, 2008; Walker and Parent, 2010) in September and October 2019. In addition to the web sites, data was drawn from official reports' content analysis (sustainability reports, annual reports, strategic plans, CSR and social impact reports) published in the 2017-2018 and 2018-2019 seasons. An additional analysis was carried out by searching for specific key words ("CSR", "social responsibility", "social engagement", "sustainability") in the homepage.

#### *Data analysis*

A qualitative and a quantitative approach was carried out. In order to analyse the two dimensions of CSR (communication and implementation) and the tools and methods of stakeholder engagement, we adopted variables from previous studies (Francois *et al.*, 2019; Lindgreen and Swaen, 2010). We considered ten variables suggested by Francois *et al.* (2019) setting them out below in greater detail:

1. The choice of media clubs adopted to communicate their social engagement strategy to stakeholder group (e.g., fans and community). We distinguished between traditional media (web sites) and social media (in particular, Facebook and Twitter).
2. Reporting as a key tool of social responsibility communication (Idowu and Towler, 2004). We highlighted the presence of sustainability and CSR/ethics reports.
3. Vocabulary, distinguishing between "soft" and "hard" communication. Vocabulary, we recall, is considered "soft" when social policies are described employing terms relating to values and ethos. While communication is "hard" when "activities are presented as having clear objectives and described using terms relating to strategy" (Francois *et al.*, 2019).
4. Partner communication is on the other hand "strong" if a club regularly referred to partners involved in an initiative, while it is 'weak' when a club does not mention the involvement of partners.
5. Global CSR communication. According to a twofold concept of CSR, it can be "altruistic" or "strategic" (Porter and Kramer, 2006; Walker and Parent, 2010).

CSR implementation variables were the following:

1. Number of social initiatives. In line with recent studies (Rosca, 2011; Francois *et al.*, 2019), the variable aimed at quantifying the club's social activities through a rating scale. Our study used a scale that ranged from "few" to "many" (where "few" applied to the number of initiatives from 0 to 3, "moderate" from 4 to 5 and "many" from 6 and upwards).
2. Social engagement. The following categories of social activities were established specifically to sports (Walker and Kent, 2009; Walker and Parent, 2010): community investment, diversity, environment, health, philanthropy, youth education, other (Francois *et al.*, 2019).

3. Scope of social engagement. A distinction was made between local/national and international initiatives (Kolyperas and Sparks, 2011; Walker and Parent, 2010).
4. Means of delivery. The study showed whether clubs relied on external structures (e.g. foundations or, in Italy, so-called ONLUS) and internal resources (e.g. internal departments) to implement CSR (Kolyperas *et al.*, 2016).
5. Partner involvement. This variable was related to the degree of partners involvement in social policies (we used a rating scale from “weak” to “strong”) (Lindgreen and Swaen, 2010).

We defined the modalities contained in each of the variables in order to clarify the different situations that emerged. We sought to define ‘mutually exclusive modalities’ and ‘non-mutually exclusive’ modalities (Francois *et al.*, 2019). This solution allowed us to code these modalities and convert them from qualitative data into quantitative data.

## RESULTS

CSR communication results have been summarized in Table 2. As for the media channels variable, dedicated tabs or menus were not available in nearly half the clubs (Fiorentina, Frosinone, Napoli, Parma, Sampdoria, S.P.A.L., Torino and Udinese). While all clubs have official websites, only three clubs (Internazionale, Milan and ChievoVerona) set up dedicated websites to promote and communicate CSR. Although, 100% of the clubs utilized social networks (Facebook, Twitter, Instagram, YouTube, etc.) to engage with their stakeholder (especially fans), only a few clubs (Roma, Bologna, Cagliari, ChievoVerona, Internazionale and Milan) relied on social networks (especially Facebook) to communicate their social initiatives. As for social/sustainability reporting, only Milan and Juventus published an annual sustainability report, in compliance with recent GRI Standard international guidelines (Global Reporting Initiative, 2016). Eleven clubs presented their ethical code on the website. Most clubs (7) adopted a “soft” vocabulary inspired by their value system; only three clubs (Genoa, Juventus and Milan) employed a “hard” vocabulary, presenting CSR policies with clear objectives and using specific terms relating to strategy. With regard to partner communication, seven out of twenty clubs systematically mentioned partners who took part in social activities (“weak” communication). Lastly, seven clubs adopted a “strategic” CSR policies (because their CSR supported the club’s core strategy), while five clubs developed “altruistic” CSR initiatives not linked to the club’s strategy.

|                          | A | %    | B | %   | Γ | %   | Δ | %   |
|--------------------------|---|------|---|-----|---|-----|---|-----|
| MEDIA CHANNELS           |   |      |   |     |   |     |   |     |
| No                       | 1 | 20%  | 3 | 60% | 1 | 20% | 3 | 60% |
| Dedicated tab            | 4 | 80%  | 2 | 40% | 4 | 80% | 2 | 40% |
| Dedicated website        | 1 | 20%  | 1 | 20% | 1 | 20% | 0 | 0%  |
| Facebook                 | 1 | 20%  | 1 | 20% | 2 | 40% | 1 | 20% |
| Twitter                  | 3 | 60%  | 1 | 20% | 0 | 0%  | 0 | 0%  |
| Other*                   | 1 | 20%  | 1 | 20% | 0 | 0%  | 0 | 0%  |
| REPORTING                |   |      |   |     |   |     |   |     |
| Yes                      | 5 | 100% | 4 | 80% | 2 | 40% | 2 | 40% |
| No                       | 0 | 0%   | 2 | 20% | 3 | 60% | 3 | 60% |
| VOCABULARY               |   |      |   |     |   |     |   |     |
| No                       | 1 | 20%  | 3 | 60% | 1 | 20% | 3 | 60% |
| Soft                     | 2 | 40%  | 1 | 20% | 2 | 40% | 2 | 40% |
| Moderate                 | 1 | 20%  | 0 | 0%  | 1 | 20% | 0 | 0%  |
| Hard                     | 1 | 20%  | 1 | 20% | 1 | 20% | 0 | 0%  |
| PARTNER COMMUNICATION    |   |      |   |     |   |     |   |     |
| No                       | 2 | 40%  | 3 | 60% | 1 | 20% | 3 | 60% |
| Weak                     | 0 | 0%   | 1 | 20% | 1 | 20% | 1 | 20% |
| Moderate                 | 0 | 0%   | 0 | 0%  | 0 | 0%  | 1 | 20% |
| Strong                   | 3 | 60%  | 1 | 20% | 3 | 60% | 0 | 0%  |
| GLOBAL CSR COMMUNICATION |   |      |   |     |   |     |   |     |
| No                       | 1 | 20%  | 3 | 60% | 1 | 20% | 3 | 60% |
| Altruistic               | 1 | 20%  | 1 | 20% | 3 | 60% | 0 | 0%  |
| Strategic                | 3 | 60%  | 1 | 20% | 1 | 20% | 2 | 40% |

Table 2. Descriptive statistics for CSR communication in Serie A (divided into A, B, Γ e Δ groups)

In terms of implementation, CSR action was not clearly organized with initiatives being few and non-recurrent (Table 3). Eleven out of twenty clubs pursued community investment action; six clubs encouraged respect of diversity, while only two clubs endorsed environmental policies. Interestingly, the clubs' most widespread type of social engagement was "youth education", considering the importance of football among the younger age groups. While the scope of activities tended to be mostly local or national, four clubs also developed international social activities. Seven clubs established non-profit organizations (foundations and ONLUS) to deliver social initiatives, while five clubs established internal departments to this purpose. Finally, most of the clubs (55%) did not apply partner integration policies, while only four clubs involved (in a "strong" way) partners in their initiatives.

|                             | A | %    | B | %    | Γ | %    | Δ | %    |
|-----------------------------|---|------|---|------|---|------|---|------|
| NUMBER OF INITIATIVES       |   |      |   |      |   |      |   |      |
| Few                         | 2 | 40%  | 4 | 80%  | 4 | 80%  | 4 | 80%  |
| Moderate                    | 0 | 0%   | 0 | 0%   | 1 | 20%  | 0 | 0%   |
| Many                        | 3 | 60%  | 1 | 20%  | 0 | 0%   | 1 | 20%  |
| SOCIAL INVOLVEMENT          |   |      |   |      |   |      |   |      |
| Community investment        | 4 | 80%  | 2 | 40%  | 3 | 60%  | 2 | 40%  |
| Diversity                   | 2 | 40%  | 1 | 20%  | 2 | 40%  | 1 | 0%   |
| Environment                 | 2 | 40%  | 0 | 0%   | 0 | 0%   | 0 | 0%   |
| Health                      | 3 | 60%  | 1 | 20%  | 3 | 60%  | 1 | 20%  |
| Philanthropy                | 2 | 40%  | 3 | 60%  | 2 | 40%  | 1 | 20%  |
| Youth Education             | 5 | 100% | 5 | 100% | 5 | 100% | 5 | 100% |
| Others                      | 2 | 40%  | 1 | 20%  | 0 | 0%   | 0 | 0%   |
| SCOPE OF SOCIAL INVOLVEMENT |   |      |   |      |   |      |   |      |
| Local/National              | 5 | 100% | 5 | 100% | 5 | 100% | 5 | 100% |
| International               | 2 | 40%  | 1 | 20%  | 0 | 0%   | 1 | 20%  |
| MEANS OF DELIVERY           |   |      |   |      |   |      |   |      |
| No means                    | 1 | 20%  | 3 | 60%  | 1 | 20%  | 3 | 60%  |
| Internal department         | 2 | 40%  | 0 | 0%   | 2 | 40%  | 1 | 20%  |
| Dedicated structures        | 2 | 40%  | 2 | 40%  | 2 | 40%  | 1 | 20%  |
| PARTNER INTEGRATION         |   |      |   |      |   |      |   |      |
| No integration              | 2 | 40%  | 3 | 60%  | 2 | 40%  | 4 | 80%  |
| Weakly integrated           | 1 | 20%  | 1 | 20%  | 0 | 0%   | 1 | 20%  |
| Moderately integrated       | 0 | 0%   | 0 | 0%   | 1 | 20%  | 0 | 0%   |
| Fully integrated            | 2 | 40%  | 1 | 20%  | 1 | 20%  | 0 | 0%   |

Table 3. Descriptive statistics for CSR implementation in Serie A (divided into A, B, Γ e Δ groups)

## DISCUSSION

Our results confirmed previous studies (Picariello and Trendafilova, 2013) which argued that CSR policies in Serie A lacked a specific structure.

Even if clubs in Group A (Table 1) (i.e. Juventus, Milan, Internazionale) were considered high-performing sports clubs, in our study this was not so closely connected to the results in terms of CSR activities and stakeholder engagement. The analysis of CSR communication was crucial in identifying distinctive types of stakeholder engagement policies and practices addressed to specific stakeholder groups. Public information on social media, CSR reports and websites in general addressed specific groups of stakeholders, namely the wider public, local communities and fans. While clubs acknowledged the importance to share sport (and corporate) information with stakeholders (e.g. sporting results and events, player information etc.) and engage with them through social networks, half of the clubs did not use any social network to communicate their specific social initiatives. Another form of social engagement analysed in this study was the use of reporting. In fact, only two clubs

published formal CSR or sustainability reports. According to scholars, social reporting was widely leveraged as a tool for stakeholder engagement. Social reporting in fact fostered accountability enabling external stakeholders to assess the club's performance. Another form of social reporting was represented by the ethical code (Caulfield, 2013), the document containing the principal statements of values that drive the club's operation, including corporate ethics, the rules of conduct employees are expected to follow and the corporate responsibility guidelines that govern relations with stakeholders. Although social reporting was considered an important tool of stakeholder engagement, in most cases the modes of communication were one-way, giving little chance for stakeholders to respond (Walters and Tacon, 2013). Clubs mostly provided "soft" communication, where initiatives were described using terms relating to the ethos and values of sport.

In terms of implementation, a key aspect of CSR was represented by club initiatives in predominantly local society. Atalanta B.C., for example, established the "Atalanta Fund" to finance social projects in its geographical area, while beneficiary of Genoa C.F.C.'s social responsibility action for the 2017-2018 season was the Gaslini Institute, the largest paediatric hospital in northern Italy. Napoli SSC, on the other hand, launched through "SSC Napoli Charity" a charitable program, which supported non-profit associations operating in the Campania region. A notable exception to this local focus of CSR was provided by Juventus, which for several years acted to foster integration and to combat discrimination in Africa (e.g. the project for the "Reintegration of Child Soldiers in Mali and Central African Republic"). Another example was represented by the activities carried out by "Inter Campus" on giving the "Right to Play" to thousands of less fortunate children since 1997. These approaches were essential in the stakeholder engagement process (Greenwood, 2007; Noland and Philips, 2010; O'Riordan and Faibrass, 2014) and went a long way in creating a trust-based relationship with the stakeholders.

Social engagement essentially focused on youth education, community investment, health, philanthropy (only two clubs endorsed environmental policies). It should be pointed out that all clubs pursued social activities in the area of youth education. This is very significant because it provided further proof of the role of sport, which more than any other potential vehicle, contains qualities that make it a powerful force in effecting positive social change (Smith and Westerbeek, 2007).

In considering the "means of delivery" of social initiatives, a heterogeneous framework emerged. For years, clubs have recorded successful experiences in CSR by leveraging either internal or external resources (e.g. foundations). For instance, Milan established the "Milan Foundation" in 2003 (a public charity linked to the wider scope of Gruppo Milan's Corporate Responsibility and Sustainability) with the aim of bringing about positive change in society and expressing solidarity to the more vulnerable segments of society. Another recent example was "Roma Cares," a non-profit organization established

by A.S. Roma in 2014 with the aim of promoting education and positive values in sport that was engaged in activities within local communities for the benefit above all of less affluent young people. The importance of such external charitable organizations was clarified in the Brown *et al.* (2006) study where the authors wrote: "Community departments at football clubs should seek to develop organizational and financial independence from their clubs. This will protect them from fluctuations in performance at clubs and provide them with freedom to develop their own ways of working." (Brown *et al.*, 2006).

## CONCLUSIONS AND PERSPECTIVES

The successful implementation of social policies (Chatzoglou *et al.*, 2017) can deliver several benefits for football clubs such as the development of long-term loyalty, legitimacy, trust and brand equity, which can contribute to the development of competitive advantage and improve financial performance (Walters and Chadwick, 2009). This paper represents an initial analysis on the implementation of CSR practices and stakeholder engagement tools in the sports industry by shedding more light on professional Italian football clubs.

Further detailed analysis could examine social engagement strategies carried out for specific stakeholder categories (e.g., sponsor or government). In addition, more detailed and transversal research should help to identify the organisational processes involved in CSR within sport.

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# LITERATURE REVIEW ON THE DIFFERENCES IN KNOWLEDGE DEVELOPMENT BETWEEN FIRMS FROM EMERGING AND DEVELOPED MARKETS

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## ABSTRACT

Literature regarding knowledge development during internationalization has been extensively advanced in the context of developed and more recently emerging markets. However, this literature is fragmented, which hinders ability to compare challenges of knowledge development for firms from different contexts. Therefore, in this literature review we focus on how firms from emerging markets acquire, absorb and use this knowledge, and how the same process happens for firms from developed countries. We assess and compare this literature in the leading international business, management, marketing, and strategy journals during the past decade. The results from 52 reviewed papers indicate that there are significant differences in knowledge development strategies of firms from different contexts. The reason is that firms initially start internationalization with different amount of knowledge due to specifics of national contexts and the position of firms in international arena. We summarize how acquired knowledge influences further strategic decisions of firms during internationalization and offer several avenues for further research in the field.

*Keywords: knowledge development, organizational learning, literature review, emerging markets, developed markets*

## INTRODUCTION

Knowledge development is a key process for successful internationalization, during which firms gradually search, acquire, integrate and use knowledge about foreign markets (Johanson & Vahlne, 1977). The rich body of literature which explores the ways in which firms learn about new markets can be broadly divided to the following streams: (a) knowledge search and acquisition, for example through foreign direct investments (FDI), international joint ventures (IJV) or partnerships (e.g. Li *et al.*, 2015; Park & Harris, 2014); and (b) the ways of applying the acquired knowledge, which are usually presented with the absorptive capacity perspective and argue about difficulties firms face

with transferring knowledge between companies, subsidiaries, and countries, and using it inside the company (e.g. Demir & Söderman, 2007). These literature streams are mostly advanced on examples of firms from developed markets (Burgess & Steenkamp, 2006). Only in the middle of 2000s, the number of studies made in emerging markets (EMs) started to increase (Paul & Benito, 2018).

There are evidences that the antecedents and processes of knowledge development are dependent on the national context of the organization (Meyer, 2007; Michailova & Hutchings, 2006), and we know that contexts of developed and emerging markets differ dramatically (Marquis & Raynard, 2015). Therefore, this paper rests on the thought that the same process of searching, acquiring, and absorbing knowledge differs significantly between firms from EMs and firms from developed markets. However, how it differs remains an open question, mainly because the two streams of the literature are fragmented from each other in a way that the theories and findings from developed markets are not fully generalizable to EMs context (Banerjee *et al.*, 2015), but also because nobody has attempted to compare the findings of the streams. Without understanding of how knowledge development happens for firms from different contexts, it is complicated to derive practical guidelines to help firms during this process and to understand important directions for further research.

Drawing on this reasoning, the present paper aims to systematize and compare literature on knowledge search, acquisition and its strategic use among firms that originate from two different contexts: EMs and developed countries. Therefore, following the main discussion of the field, we ask the following questions: (1) *how do firms from EMs search, absorb, and use knowledge about targeted markets, and how the same processes are done in firms from developed countries;* (2) *what is the difference between the processes and its outcomes in different contexts;* (3) *how could the knowledge development literature be further advanced.* To pursue our goal, we make a systematic review (Tranfield *et al.*, 2003) of 52 articles from leading international business journals for the past decade.

This review offers in-depth analysis of what is known about knowledge development for firms from different contexts and suggests areas for future research by highlighting unanswered questions of the present knowledge. By this review we aim to advance international business literature by integrating and comparing two streams of research, fragmented from each other. We assume it will help to conceptualize the field and help future research to formulate more plausible research questions and models.

The remainder of the paper proceeds as follows. In the next part, we describe how we selected the articles for the review. Further, we present findings from the sample, by showing the scope, the main

theoretical concepts, and the variables of interest. We proceed with the discussion, where we give answers to the research questions. We conclude by giving our thoughts on possible avenues of further development of the field.

## METHODS

The schematic description of the methodological steps may be found in Appendix 1; below we describe each step in more detail. We show the nature of the review and the search protocol: reviewed journals, time span, inclusion criteria, and the selection process.

The aim of this review is to systematize and compare two fragmented streams of literature on knowledge search, acquisition and its strategic use. To ensure quality of the papers included into the review, we concentrated our search on the leading international business, marketing, management, and strategy journals: Journal of International Business Studies (JIBS), Strategic Management Journal (SMJ), Journal of World Business (JWB), International Business Review (IBR), Journal of Marketing (JMar), Journal of Marketing Research (JMR), Marketing Science (MS), European Journal of Marketing (EJM), Academy of Management Journal (AMJ), Academy of Management Review (AMR), Administrative Science Quarterly (ASQ), and Journal of Management (JMan). We do acknowledge that other related articles are published outside these journals. But these journals are considered to be the leading in the field and publish work that has the highest impact.

To be able to compare the two streams of research, we needed firstly to identify the relevant time span. In doing so, we relied on Paul and Benito (2018) in their note that EM firms rapidly increased the scale and pace of their business outside the home countries only in the beginning of 2000s, meaning that empirical research exploring EM firms appeared even further. We made a test search, which showed that only starting 2007 the number of articles made in EMs' context considerably increased. Therefore, the present review spans one decade, starting from 2007 until 2017.

Next, we identified the relevant keywords. We recognize that scholars use several terms to define EMs, thus we used the most common ones in our search: emerging, developing, and transition market/country. The rest of the keywords relate to knowledge development process during internationalization: international strategy, internationalization, knowledge development, and organizational learning. The keyword search in paper abstracts and titles using Web of Science database yielded 335 potentially relevant articles.

Studies eligible for review had to fulfill the following inclusion criteria. Firstly, it should clearly present one of the contexts: a) a firm from EMs internationalizing or already working in developed countries, or b) a firm from a developed country, which internationalizes, or already has businesses in EMs. Secondly, a paper should discuss and make conclusions related to aspects of knowledge development presented above. Thirdly, an article should have an empirical perspective, which means include data analysis and statistical tests.

To select relevant papers, we read the abstracts and in cases when it was not possible to judge about relevance after reading the abstract, we continued on the full paper to assess if it was appropriate for the review. Some articles clearly focused on aspects of knowledge development (e.g. Li *et al.*, 2015), while others explored different questions, however presented findings attributable to knowledge development process as an indirect outcome of the paper (e.g. García-Canal & Guillén, 2008; Gubbi *et al.*, 2010) Both types of papers were included into the review, because our aim was to find articles that present findings regarding knowledge development process. We excluded papers, which did not meet the inclusion criteria: the papers, which did not clearly presented the context (e.g. Bingham & Davis, 2012) and the papers that did not make any conclusions/discussion related to aspects of knowledge development (e.g. Chan *et al.*, 2010; Demirbag *et al.*, 2011; Heidenreich *et al.*, 2015; Lu & Ma, 2008). We as well excluded articles, which had state-owned enterprises or business groups as a unit of analysis because knowledge development process in such companies and private-owned firms differs significantly. Finally, 52 articles were included (the full list of included papers is available in Appendix 2) and its allocation among the journals is presented in table 1 (not including the journals where the search did not yield a result, as JMR, MS, EJM, AMR, JMan).

|           | JIBS | SMJ | JWB | IBR | AMJ | ASQ | JMark | Total |
|-----------|------|-----|-----|-----|-----|-----|-------|-------|
| 2007-2017 | 13   | 6   | 16  | 14  | 1   | 1   | 1     | 52    |

Table 1. Results of the search by journals

## SCOPE AND THE DESCRIPTION OF THE ARTICLES

### *The scope of the review*

Table 2 shows the regions and countries which were presented in the sample as well as the context of the articles. Some articles studied relationships between companies from two points of view (e.g. Banerjee *et al.*, 2015), thus there is a cross-posting in calculations.

Articles, which cover the first context, were more interested in questions of how firms from China (11 studies), India (5 studies) and other Southeast Asian countries internationalize to various developed countries. Indeed, India and China are the two most populated and fastest-growing countries in the region. Other countries did not receive much attention: two articles from Latin America, one from BRIC and Russia cannot shed light on patterns of learning and knowledge development in the regions. As we see, the articles usually did not specify targeted countries or studied multiple destinations. In the second context, many articles were focused on China as well, describing how firms from various developed countries do business there. Other Asian countries received smaller attention. Several articles were focused on countries from Central and Eastern Europe, which represent a very interesting region because of its Soviet past and rapid change to the market-based economy. If we analyze the papers' countries of origin, we see that the biggest part is done in the US (5 articles),

following Japan (4 articles), and Scandinavia (3 articles). In general, for the second context, the scope is more diverse and targeted countries are usually specified.

|                   |                   | 1st context: a firm from an EM internationalizing or already working in developed countries           |  |       |           |         |  |          |
|-------------------|-------------------|---|--|-------|-----------|---------|--|----------|
| Targeted country  | Initiator country | UK  | Scandinavian countries (Sweden, Denmark) | Japan | Australia | Germany | Not specified or multiple destinations |          |
| China             |                   |   | 1  |       | 1         | 1       | 8                                      |          |
| India             |                   |   | 1  |       |           |         | 4                                      |          |
| Southeast Asia    | 1                 |   |  | 1     |           |         | 6                                      |          |
| BRIC (as a group) |                   |   |  |       |           |         | 3                                      |          |
| Russia            |                   |   |  |       |           |         | 1                                      |          |
| Latin America     |                   |   |  |       |           |         | 2                                      |          |
| Africa            |                   |   |  |       |           |         | 2                                      |          |
| Multiple          |                   |   |  |       |           |         | 2                                      |          |
|                   |                   | 2nd context: a firm from a developed economy, which internationalize, or already have business in Ems |  |       |           |         |  |          |
| Targeted          | China             | India   | Africa                                   | BRIC  | Southeast | Latin   | Central                                | Multiple |

| country<br>Initiator<br>country |   |   | (Ghana) | (as a<br>group) | Asia<br>(Vietnam,<br>Korea) | America | and<br>Eastern<br>Europe | or not<br>specified |
|---------------------------------|---|---|---------|-----------------|-----------------------------|---------|--------------------------|---------------------|
| US                              | 2 |   |         |                 |                             |         | 1                        | 2                   |
| Germany                         |   |   | 1       |                 |                             |         | 1                        |                     |
| Scandinavia                     | 2 | 1 |         |                 |                             |         |                          |                     |
| Spain                           |   |   |         |                 |                             | 1       |                          | 1                   |
| UK                              |   |   |         |                 | 1                           |         |                          | 2                   |
| Japan                           | 2 |   |         |                 |                             |         |                          | 2                   |
| Not specified or<br>multiple    | 1 | 2 |         | 1               | 2                           | 1       | 2                        |                     |

Table 2. Regions/countries and contexts of the sample articles.

In total, the sample contains 27 articles made in the first context group, 18 articles made in the second context group, and 7 articles that develop conclusions for both contexts (for example as Yildiz and Fey (2016) discuss M&As between Sweden and China and give conclusions for both countries).

#### *Main theoretical concepts*

Scholars use many different theoretical perspectives and concepts to describe knowledge development process of firms internationalizing to host countries. Usually, they combine several perspectives from different fields to study this dynamic and complicated process. Often it is a perspective from organizational learning and institutional theory (hereinafter OL and IT respectively). It is quite expected because there are strong linkages between external institutions and the process of firm's learning, moreover it is argued that the three characteristics of institutions underpin OL (Levitt & March, 1988). There were many articles that do not distinguish a particular theoretical perspective, but relied on the current discussion in the related field (e.g. Elia & Santangelo, 2017; Xia *et al.*, 2009). The overview of the used theoretical perspectives is presented in table 3. Further below we describe each theoretical perspective in more detail and say how scholars use each of them separately, what questions they aim to answer, and what conclusions they find.

#### *Organizational learning theory*

OL is used in almost each study either as a major theoretical perspective or as an additional theoretical lens. Many scholars do not distinguish a certain perspective of OL in the articles; however, there are

several perspectives, which were in focus: 1) knowledge-based view; 2) LLL (linkage, leverage, and learning); 3) experiential learning; 4) catch-up strategies; and 5) absorptive capacity.

*Knowledge-based view* (KBV) has a very broad theoretical span and studies different types of knowledge and capabilities of a firm, which help to gain, absorb and integrate external knowledge to create competitive advantage and minimize future risks and uncertainties in foreign operations (Lu *et al.*, 2014). There are three papers in the sample, which explicitly stated the use of KBV. All of them study EMs context, covering such countries as Argentina (Corredoira & McDermott, 2014), Latin America in general (Dau, 2013), and China (Lu *et al.*, 2014). The papers are focused on studying the questions of how home institutions help/hinder firm's internationalization and how firms can learn from foreign MNEs. Scholars find that home government support, pro-market reforms, and well-developed host country institutions significantly reduce risk in international operations. They argue that for firms from EMs, it is important to acquire useful and transferable knowledge in their international operations because such knowledge can help them to build competitive advantage over their competitors at the home market.

| Theory                  | Perspective                           | The aim of the perspective  |
|-------------------------|---------------------------------------|---|
| Organizational learning | KBV (knowledge-based view)            | Studies different types of knowledge and capabilities of a firm, which help to gain, absorb and integrate external knowledge to create competitive advantage and minimize future risks and uncertainties in foreign operations. |
|                         | LLL (linkage, leverage, and learning) | Studies how firms internationalize by leveraging their resources, especially learning.  |
|                         | Experiential learning                 | The process of knowledge accumulation from previous experience and using it in future decisions.  |
|                         | Catch-up strategies                   | Asks how to utilize acquired knowledge to upgrade existing competencies and procedures.   |
|                         | Absorptive capacity                   | Studies how firms recognize the value of new, external information, assimilate and apply it to reach the organization's goals.  |
| Institutional theory    | Liability of foreignness              | Unfamiliarity with local culture and other aspects of local markets, lack of information, networks or political influence in the host country, which causes a competitive disadvantage for new entrants.                        |
|                         | Psychic/ cultural distance            | Factors, existing in the external environment (e.g., norms and values) that affect the perceptions of individuals.  |

|  |                      |   |
|--|----------------------|---|
|  | Institutional change | Change in the national environment of a country, which creates uncertainty and increases risks. |
|--|----------------------|---|

Table 3. Theoretical perspectives used in the sample articles

**Linkage, leverage, and learning** (LLL) model studies how firms internationalize by leveraging their resources, especially learning. LLL framework explains how firms that lack a strong resource base engage in rapid internationalization to get access to needed resources. Only three papers from EMs' context, one from China (Tan & Mathews, 2015) and two from India (Bangara *et al.*, 2012; Thite *et al.*, 2016), explicitly use LLL framework. Firms from EMs engage in linkage with players from developed markets via partnerships and acquisitions to get access to intangible resources, market opportunities, and management talent (Thite *et al.*, 2016). They leverage acquired knowledge to address firm-specific weaknesses and liabilities and learn from a more advanced partner (Tan & Mathews, 2015; Bangara *et al.*, 2012).

**Experiential learning** – a widely used perspective which study the process of knowledge accumulation from previous experience and using it in future decisions. Experiential learning is a first-hand, direct experience, gained from international operations (Tuschke *et al.*, 2014). The issues of experiential learning are more of focus in research made in a developed market context. Papers are focused on issues of learning in M&As and IJVs and when experiential learning and prior experience is more beneficial. Perkins (2014) shows that prior experience pays most consistently when the institutional environment of a new targeted country is similar to institutional environment of the country where the experience is from. Moreover, when firms try to apply irrelevant experience in a new country, the risk of failure increases, because managers overestimate performance outcomes. García-Canal and Guillén (2008) find that firms that originate from regulated industries accumulate their knowledge and skills to internationalize to politically unstable countries. Their previous experience of operating in politically unstable countries makes firms prone to use lobbying and bribing. It is also found, that political knowledge has a positive impact on competitive advantage for firms that work in EMs (Jiménez *et al.*, 2014), and a greater diversity of perceived political environments leads to a more positive attitude towards political risk. Another article shows that developed market firms with larger international experience tend to choose non-equity expansion modes when entering EMs because that way they can engage in experiential learning before making heavier investments (Wooster *et al.*, 2016). When comparing the usefulness of direct and indirect experience in the context of German FDIs to Eastern Europe, Tuschke *et al.* (2014) conclude that direct, first-hand experience is more beneficial with entries to EMs. In general, scholars from both contexts confirm that prior experience helps in international operations; however, firms from EMs are more

dependent on experience and are more sensitive to negative experience (Zhou *et al.*, 2016). Kim, Hoskisson, and Lee (2015) study Korean multinationals and show that it is better to internationalize to resource-poorer countries if a firm wants to take advantage of experiential learning efficiently. They also conclude that, nevertheless, expansion to developed countries brings needed market knowledge; learning is more complicated and takes longer time, due to other important constraints the firms need to deal with. Hong and Lee (2015) bring another perspective into the same context of Korean MNEs, arguing that experience reduces cultural uncertainty only when it is transferrable to other contexts. Thus, general knowledge is more efficient in international operations, because it is less country-specific.

Studies, which apply *catch-up strategies* do not use it as a standalone or a major perspective, but as an additional lens to ask how to utilize acquired knowledge to upgrade existing competencies and procedures (Lamin & Livanis, 2013). There are many reasons firms undertake catch-up strategies. For example, MNEs from EMs pursue strategic asset-seeking FDI to acquire knowledge-based resources like technology and managerial know-how, and catch-up with world leaders (Cui *et al.*, 2014). Also, headquarters from EMs want to have “reverse” knowledge flow from a subsidiary in a developed country with the aim of competence exploitation (Anderson *et al.*, 2015; Awate *et al.*, 2015). Catch-up helps to learn from observations and environmental scanning, thus it is the best strategy for firms that want to imitate easily observed technology (Lamin & Livanis, 2013). Four papers utilize catch-up perspective: two from EMs, and two that show perspective of firms from both types of markets.

*Absorptive capacity* is “a firm’s ability to recognize the value of new, external information, assimilate and apply it to reach the organization’s goals” (Cohen & Levinthal, 1990) and it is also called as knowledge transfer. There are many articles studying issues of absorptive capacity and knowledge transfer from both context groups. Scholars from EMs are interested in the following questions: how external forces (for example home country institutional conditions, psychic distance between countries, etc.) influence the efficiency of absorptive capacity (Corredoira & McDermott, 2014); what knowledge types are easier to absorb (Gunawan & Rose, 2014); what internal mechanisms a firm can develop to enhance absorptive capacity (B. I. Park & Choi, 2014); what personal qualities help managers to learn more efficiently (J.-Y. Park & Harris, 2014). Demir and Söderman (2007) explore Swedish JVs to China and ask how prior experience influences learning ability of a firm. Scholars from both contexts found several similar patterns. Firstly, home country institutional conditions may help or hinder absorptive capacity. For example, for Argentina, Corredoira and McDermott (2014) find that government support institutions, as public research institutes and training centers, facilitate learning and absorptive capacity of local firms. Local firms need these institutions to provide them with

valuable information, industry data, international trends and standards, which is complicated for firms to collect on their own. Secondly, specific internal organizational practices and managers' personal qualities may help to enhance absorptive capacity. Both J.-Y. Park and Harris (2014) and Demir and Söderman (2007) confirm that prior experience and knowledge from a specific host country enhances learning ability. Also, several articles studying cross-border acquisitions show that knowledge acquisition may be enhanced by open communication between the partners (B. I. Park & Choi, 2014), as well as by giving autonomy to a subsidiary (Wang *et al.*, 2014). Moreover, many authors find evidence that geographical distance negatively influences absorptive capacity; it was also confirmed for psychic distance (e.g. Yildiz & Fey, 2016). Gunawan and Rose (2014) found that for firms from EMs it was easier to absorb second-hand (indirect) knowledge, acquired from buyers, competitors, and the government.

#### *Institutional theory*

IT was not used as a one-standing perspective; it was always combined with some perspectives from OL. IT is helpful to shed light on questions of institutional differences between the home and host countries, institutional voids, cultural distance, etc. The combination with learning perspectives helps to trace dependence between knowledge development and institutional differences, which is crucial for studying such different contexts as developed and emerging countries. Below we outline the main theoretical lenses of IT used in the sample articles as well as scholars' claims and conclusions.

In general, scholars confirmed that distance between countries influence their propensity to learn: it is easier to learn for firms from geographically close countries, which share historical and social connections (B. I. Park & Choi, 2014); high differences in national and organizational cultures between partner firms hinders absorptive capacity (J.-Y. Park & Harris, 2014).

The biggest part of the articles addresses issues of *liability of foreignness* and *psychic distance* and asks how firms can overcome it. These questions were equally presented in both contexts. Liability of foreignness relates to unfamiliarity with local culture and other aspects of local markets, lack of information, networks or political influence in the host country, which causes a competitive disadvantage for new entrants (Lamin & Livanis, 2013). The finding, that foreign entrants tend to agglomerate to overcome liability of foreignness and get access to knowledge spillovers, is true for firms from both contexts (Lamin & Livanis, 2013; D. Tan & Meyer, 2011). Articles made in developed market context find that perception of differences motivates managers to learn about the culture and informal institutions (Abdi & Aulakh, 2012), the development of such market-specific knowledge further, decreases psychic distance (Dikova, 2009). Firms can get access to tacit knowledge as business

climate, culture, or structure of the market system, through partnerships and joint ventures with local firms, and use the partner's goodwill to overcome institutional distance (Owens *et al.*, 2013). Firms from EMs need a different type of knowledge to reduce cultural uncertainty – general international knowledge (Hong & Lee, 2015). Acquirers from EMs suffer from liability of foreignness and perception of psychic distance more than firms from developed countries (Zhou *et al.*, 2016). In partnerships between firms from emerging and developed markets, this asymmetry in perception of psychic distance may create divergent effects on knowledge transfer and organizational commitment. It happens because partners from EMs are more willing to implement organizational practices of the partner from a developed market, than vice versa (Yildiz & Fey, 2016). Firms from EMs can deal with this challenge and enhance inward learning by giving autonomy to the partner from a developed country (Liou *et al.*, 2016; Wang *et al.*, 2014). For example, they can mitigate liability of foreignness by sharing control with the local management and sharing work with local employees (Klossek *et al.*, 2012). Firms from developed markets also use the strategy of reduced organizational control, however with another aim: to minimize information and production costs by learning from their partners (Sartor & Beamish, 2014).

Another perspective of IT used in the sample is *institutional change* and its influence on entry strategies. This question was in focus for firms from developed markets that internationalize to EMs, which is not surprising since issues of institutional change are more relevant for unstable institutions of EMs (Rottig, 2016). Xia *et al.* (2009) find that when firms choose between a hierarchical and a less-involved entry (focused on building relationships, e.g., partnership) in countries with high uncertainty, more experienced firms tend to choose a hierarchical mode to get control, while firms that want to learn about the market, choose relational entry. This study focused on the behavior of firms from the US, going to Central and Eastern European (CEE) transition economies. Findings of another study, which was also made among firms from the US, but targeting Latin America and the Caribbean, contradict to the previous example. Wooster *et al.* (2016) give evidence that more experienced firms acknowledge the importance of market-specific knowledge and will choose a non-equity entry to engage in experiential learning prior to making heavier investments. This contradiction may be partly explained with findings from another study: Lahiri, Elango, and Kundu (2014) found that higher institutional distance forces firms to engage in full acquisitions. We wanted to check this argument and looked at Hofstede's cultural distance index to compare United States with some countries from CEE and Latin America regions. However, according to the indexes, it is impossible to judge that CEE countries are more culturally distant from the U.S. than Latin American countries ("Hofstede Insights - Country comparison,"). But we can assume then, that the U.S. based firms might perceive CEE countries as more distant, than Latin American countries.

We may summarize that scholars studying knowledge development of firms from EMs want to understand what types of knowledge and capabilities will help firms to minimize risks in foreign operations, how to offset their resource deficiency, and what strategies can help them to acquire knowledge from abroad and absorb it efficiently. Scholars from developed markets are interested in questions related to the development of international experience, what type of experience is more useful, what influences learning ability of a firm, and how to deal with institutional uncertainty of EMs.

The findings from the sample, allowed us to present a schematic description of the knowledge development process, and the strategies firms pursue in figure 1. We describe the points of the figure in more detail in the discussion part.

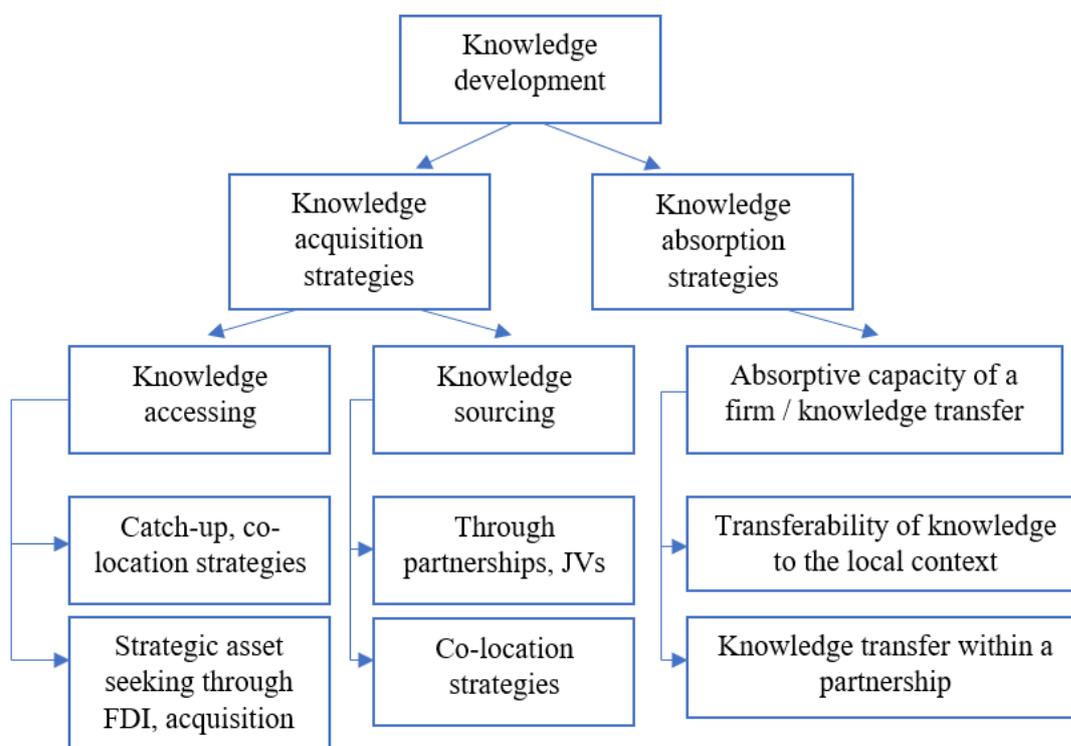


Figure 1. Schematic description of knowledge development strategies

## DISCUSSION AND FUTURE RESEARCH

In this paper, we aim to answer the questions of how organizations from different contexts acquire, absorb, and use knowledge about targeted markets and what outcomes this knowledge creates. The studied contexts are fundamentally different: the 1<sup>st</sup> context covers firms from EMs, which

internationalize or already work in developed countries, while the 2<sup>nd</sup> context embraces the opposite – firms from developed countries, starting or continuing business in EMs.

*What strategies do firms from EMs apply when search, absorb, and use knowledge about targeted markets, and what strategies are used by firms from developed countries?*

The literature about knowledge development process is quite diverse; however, we were able to distinguish two main strategies of knowledge development from the sample articles: a) knowledge acquiring strategies, and b) strategies of knowledge absorption.

#### *Knowledge acquiring strategies*

Firms undertake knowledge acquiring strategies to get tacit (D. Tan & Meyer, 2011), intangible, new-to-the industry (Levin & Barnard, 2013) knowledge and cutting-edge capabilities (Anderson *et al.*, 2015), which can be later used to get market access, upgrade firm's capabilities and practices (Gubbi *et al.*, 2010), and get competitive advantage at home market.

Scholars distinguish between “knowledge accessing” and “knowledge sourcing” strategies. To explain the difference between the strategies we may drive a parallel with Levinthal and March (1993), who discuss the difference between exploration and exploitation of knowledge. The authors write that exploration is the “pursuit of new knowledge”, while exploitation is the “use and development of things already known”. Sample articles use knowledge accessing concept when study behavior of firms from EMs, which internationalize to acquire new knowledge. Knowledge sourcing is used in the context of firms from developed countries, which go abroad to enhance their knowledge base with market-specific information.

a) As was said above, the term *knowledge accessing* is used in EMs context. The goal of this strategy is to have “reverse” knowledge flow, for example from subsidiaries, established in developed countries (Awate *et al.*, 2015). Firms from EMs use knowledge accessing strategy to catch-up with industry leaders and build competitive advantage. They pursue strategic asset-seeking to access tangible and intangible resources, including tacit knowledge and know-how, that are both difficult to trade through market transactions and take time to develop internally (Gubbi *et al.*, 2010). Firms use FDIs and acquisitions to have reverse knowledge transfer (Anderson *et al.*, 2015), to get access to best practices, to become more competitive and create firm-specific advantages (Cui *et al.*, 2014), and to compensate for the weak home country institutions (Elia & Santangelo, 2017). When EM firms are able to escape from the home country's unfavorable institutional environment and operate in more

efficient conditions, they can concentrate on building knowledge and developing their competencies (Deng, 2009).

b) Scholars studying firms from developed markets use *knowledge sourcing* term. Some papers describe it as a strategy of “teaching” firms’ subsidiaries in EMs (Awate *et al.*, 2015). When firms from developed countries internationalize to EMs, they need to adapt to local institutions. Thus, they prefer partnerships and joint ventures to acquire information about host country’s regulatory and social frameworks (Owens *et al.*, 2013) and to develop their internal organizational structure and capabilities topical in the targeted country (Abdi & Aulakh, 2012). Co-location with peers from the same country of origin helps to acquire tacit and sensitive information about the targeted market (D. Tan & Meyer, 2011).

From the above we see, that there are different types of knowledge that firms look for: new knowledge vs. additional, market-specific knowledge. This difference shows that firms from EMs initially lack knowledge, while firms from developed markets do not.

#### *Strategies of knowledge absorption*

We see that firms have different strategies for acquiring knowledge, depending on the country of origin, available resources, prior experience, and the type of information required. These aspects influence the next stage of the knowledge development process - transfer of the acquired knowledge to the company, its absorption inside the company and application in local conditions. Below we discuss which aspects influence knowledge transfer strategies in each context.

a) Issues of absorptive capacity are of high focus in articles made in EMs context. The high interest may demonstrate that it is more challenging for firms from EMs to transfer knowledge than to get access to it. There are many reasons why it is not so easy for firms from EMs to apply foreign knowledge at home. Many studies highlight issues of unpreparedness and lack of support from local institutions and organizations (e.g., local suppliers) (Corredoira & McDermott, 2014), lack of resources to apply new technologies and innovation. Thus the main feature of acquired knowledge should be its transferability to the local context (Dau, 2013). For firms from EMs, it is easier to absorb second-hand, and indirect knowledge, which they can get from the buyers in developed markets, and competitors (Gunawan & Rose, 2014). General international knowledge, which is easy to observe and copy, is more transferable between different contexts, which is why this type of knowledge is of focus among firms from EMs (Hong & Lee, 2015). The efficiency of the transfer also depends on the firm’s affiliation: whether it is a state-owned or a private firm. In EMs state-owned firms usually have better

political connections, which can help to benefit from collaboration with foreigners, but inhibit the ability to absorb foreign knowledge because of firm's hierarchical structure and organizational inertia (Chen & Tan, 2016). Conversely, private entrepreneurial firms have flexible organizational structures that foster learning culture, which makes acquired knowledge effective. To enhance absorptive capacity EM firms may hire "returnees", people who studied or worked in developed markets and have returned to the home country. These people possess valuable knowledge about regulations and traditions of host countries alongside with knowledge of home country norms, thus making the knowledge absorption process more effective.

b) There are only several studies, which address knowledge transfer issues in the context of firms from developed markets. However, they instantly show that the core of the challenges for knowledge transfer is different than for firms from EMs. Mostly, these papers study issues of knowledge transfer within a partnership. The papers show that developed countries have a higher status in the international arena, which is an advantage in many cases, but has important challenges when it comes to knowledge transfer. Perception of higher status causes overconfidence among managers and hinders the willingness to implement practices from "knowledge-inferior" partner (Yildiz & Fey, 2016), which may negatively influence the profitability of a partnership and lack of commitment. Institutional heterogeneity of EMs imposes additional challenges. Even geographically and culturally close EMs may significantly differ from each other, which creates issues with knowledge transfer. Acquisition of new market-specific knowledge is resource consuming. Moreover, even within-country regions may differ, which increases institutional hazards for firms from developed markets. In contrast, EM firms do not face this problem, because developed countries' institutional environments are more homogeneous.

*What is the difference between the strategies and its outcomes in different contexts?*

Based on the above, we see that firms from developed and EMs start internationalization with different knowledge base and experience. It goes along with the findings of Banerjee *et al.* (2015) who show that the stage and pattern of business evolution for firms from EMs differs significantly from the stage and pattern of firms from developed countries. When we compare the core questions and the findings of knowledge accessing vs. knowledge sourcing papers, we see that firms from EMs need novel knowledge, while firms from developed markets need to enhance already existing knowledge base. Firms from developed markets do business in EMs for many decades, which gave them "knowledge advantage". At first, it influences the type of information firms look for in international markets. To get general understanding about international markets, companies from EMs engage in

indirect learning and collect second-hand experience, which is easier to acquire and transfer to the home country. However, EM firms should be careful when choosing a source of information. For example, local suppliers in EMs have little international experience and cannot provide valid information (Gunawan & Rose, 2014). In contrast, compatriots, who work in developed countries, may give valuable novel knowledge (Levin & Barnard, 2013). Experienced firms from developed countries already possess general international experience from their predecessors, that is why they look for market-specific information for entering EMs and collect it through first-hand experience and experiential learning (Tuschke *et al.*, 2014). Local knowledge is important for EM firms as well, but during more “involved” types of entries, for example, FDI. Localized knowledge decreases uncertainty and is advantageous when MNEs are willing to overcome host regulatory uncertainty and achieve managerial efficiency (Fan *et al.*, 2016).

Companies engage in different entry modes due to different needed outcomes. Firms from EMs apply strategic asset seeking FDIs and acquisitions to acquire technologies and overcome the firms’ resource and home country’s disadvantages (Gubbi *et al.*, 2010). Firms from developed countries make acquisitions in EMs when it is possible to transfer their capabilities to the targeted firm and enhance innovation. The need for market-specific information influences their entry mode, thus these firms engage in partnerships more often.

The outcome and usefulness of the acquired knowledge mainly depend on the absorptive capacity of an organization. Firms from both contexts have its challenges with the effectiveness of knowledge transfer. Lack of support from home institutions forces firms from EMs to look for general knowledge, which does not provide any specific information about a country. If EM firms need more in-depth knowledge, e.g., technology or managerial capabilities, they prefer to enter the targeted country with an FDI or an acquisition. These modes are resource consuming, risky, and involve governing difficulties. Due to the liability of foreignness issues, EM firms give autonomy to their partners in developed markets, which increases the “reverse” knowledge flow, but decreases commitment and market presence. For firms from developed countries, the outcome is different. Higher international experience and status gives these firms initial competitive advantage and better position in a partnership. They do not need to pursue hierarchical modes of entry, since they are not interested in EMs’ technologies and know-how. Firms from developed countries prefer joint ventures and partnerships with locals to learn specific information about the market, its’ institutional arrangements, and ways of doing business. These modes of entry are less resource consuming and easier to govern, which makes learning more effective. The main aim is to “teach” knowledge-inferior partners to enhance innovation and profitability of the venture.

There is a very important difference in the perception of liability of foreignness by firms from different contexts, which influences their future strategic decisions. For firms from developed countries liability of foreignness appears as unfamiliarity with local procedures and culture. They may overcome it with specific entry strategies, like joint ventures, and modifications of organizational structures. The sample shows that firms from developed countries successfully apply these strategies. Firms from EMs perceive different aspects of liability of foreignness: lower status in the eyes of host country's customers and partners, and negative heritage associated with the home-country institutions. These issues are much more complicated to overcome, and the strategy of giving autonomy to the subsidiaries may help, but in the short-run. It may take a lot of time to build reputation and market presence.

*How could the knowledge development literature be further advanced?*

Based on the questions and findings of the sample articles, we propose the following avenues of further theoretical and methodological development.

We believe, the first issue that may help firms (especially from EMs) to strengthen their international positions is exploring *relationship between home country institutions and local organizations, and knowledge development*. Some papers are built on a claim that unpreparedness and underdevelopment of EMs' local institutions influences different aspects of the knowledge development process, including how firms acquire, absorb, and use knowledge. The main challenge for firms from EMs is to apply in local context knowledge gained from MNEs from developed countries (Corredoira & McDermott, 2014). Thus, for this knowledge to become useful and help firms to upgrade its capabilities and processes, they need support from local organizations and the government. Future research may look at this question more closely and discuss what particular institutions and organizations may enhance firms' absorptive capacity and how.

The questions of the role of local institutional environment in the knowledge acquiring process are of high importance. Reviewed papers showed that many EM firms try to overcome their "late-comers" disadvantage with hierarchical entry modes to directly acquire technologies and capabilities of firms from developed countries. However, hierarchical entry modes are risky and resource consuming, and require extensive market knowledge, which is complicated to collect on firms' own. It is important to understand whether certain organizations can help to decrease uncertainty by providing information, industry data, and standards of host markets. Is it also a matter of having a good network at home and the use of the firm's political capabilities? We believe, that the use of political strategies is a promising avenue in the international business research because both, emerging and developed countries are

becoming more and more politically regulated. Scholars claim that more diverse experience from different political environments leads to a more positive perception towards political risk and decreases uncertainty (Jiménez *et al.*, 2014). They emphasize the importance of framing political strategy as an opportunity to learn, rather than a threat. However, in China state-owned firms, in spite of having better political networks and thus better access to resources, have lower absorptive capacity due to organizational inertia (Chen & Tan, 2016). Thus, it is unclear what pros and cons political strategies have, and what are the determinants, measurement, and consequences of political capabilities in different contexts.

The next question, which was mentioned between the lines is: *are there types of knowledge and experience more beneficial/useful than others in different contexts*. Issues of applicability and transferability of knowledge to different countries were of researchers' interest in both contexts. Only one article found the clear distinction that general international experience (GIE) is more beneficial when a firm works in developed countries, and country-specific experience (CSE) is more useful in EMs (P.-Y. Li & Meyer, 2009). The authors make this conclusion in the context of Taiwanese subsidiaries working in emerging and developing countries, however, it is unclear whether this conclusion is universal. Are there types of GIE that is valuable in EMs, and CSE that is beneficial in developed markets? In addition P.-Y. Li and Meyer (2009) claim that GIE and CSE create different types of capabilities, which may have different impact on the firm's future strategy. However, it is unclear what types of capabilities and what is more useful in different countries. Scholars claim that developed markets are more institutionally homogeneous, thus knowledge and experience gained in one developed market is transferable to another developed market to some extent, while in EMs the situation is more complicated. But we know developed countries that are very different from each other, e.g. Israel and Norway, so will GIE work in both countries? Also maybe there are types of CSE that can work in many different markets? It is unclear are there other aspects inside or outside an organization that influence transferability of knowledge. In addition, articles, which discuss location strategies say that co-location enables firms to engage in observation and environmental scanning, and benefit from demonstration effects (Lamin & Livanis, 2013). They also say that in developed markets local firms do not pay much attention to location-specific activity, while in EMs locals actively agglomerate to get access to knowledge spillovers (D. Tan & Meyer, 2011). Does it mean that there is a difference between types and usefulness of knowledge spillovers in developed and emerging markets? In what way this knowledge may be used in future and how it influences liability of foreignness. Future research may look at these issues.

Issues of *managing international JVs and partnerships* are of high interest among the sample articles. Firms from both contexts use non-hierarchical entry modes to get access to tacit knowledge and technologies, learn the host market's norms and regulations. However, as we discussed above, there are many unanswered questions and challenges. For example, several articles discuss how firms from EMs use the strategy of giving autonomy to a subsidiary in a developed country to overcome different challenges. But these studies present autonomy delegation strategy only from the short-term point of view. Longitudinal studies can shed light on questions of the costs and benefits of the strategy in the long run, and how the strategy influences commitment and efficiency of a partnership over the years.

Other challenges arise from the *psychic and institutional distance between the parties and perceived liability of foreignness*. Scholars claim that high psychic and institutional distance hinders absorptive capacity and effectiveness of learning, and generates a lack of understanding between the partners (B. I. Park & Choi, 2014). Firms from high-status countries show unwillingness to implement organizational practices of the lower-status partner (Yildiz & Fey, 2016). However, we do not know what are the antecedents and long-term consequences of psychic distance and liability of foreignness perceptions, and what capabilities firms from low-status countries may develop to build legitimacy in a partnership.

There is a claim in the literature that firms from EMs do not follow internationally accepted internationalization model of gradual knowledge development (Johanson & Vahlne, 1977). We also noticed it in our sample, that firms from EMs often use involved, hierarchical internationalization modes to acquire knowledge and capabilities faster. Thus, we call for advancing the current theoretical perspectives and research models and frameworks to analyze knowledge acquisition strategies of firms from EMs. Since home country institutional environment plays an important role in firms' internationalization decisions (Scott, 2014), we assume that combination of several perspectives (e.g. perspectives from organizational learning and institutional theory) will add plausibility and robustness and enhance further theoretical development.

To enhance the reliability of the research, there is a need for greater geographical diversification of research settings. Most research from EMs was done in China and India, the countries which are institutionally and culturally different from other EMs, as Africa, Middle East, South America, and Eastern Europe. Studies showed that antecedents and outcomes of knowledge development process vary in different regions of the world. However, we do not know why it differs and how home country institutional conditions influence the process.

The major part of the papers used quantitative methods to achieve generalizability goals. However, by using quantitative methods, scholars ignore important features of qualitative research: in-depth understanding of a phenomenon and its antecedents and outcomes. Papers from the sample which did use a qualitative approach, made important conclusions, which were not possible to make using a quantitative approach. It is important to know about cases of failures because it may unfold a firm's internal capabilities and external triggers which prevent learning and lead to negative outcomes.

## CONCLUSIONS

In this review we compared two fragmented streams of literature on knowledge development during internationalization. Our focus has been on the processes of knowledge acquiring, absorption, and further use for firms from emerging and developed countries. We also highlighted unanswered questions in existing literature and suggested directions for further research to advance our knowledge on the field. A number of important conclusions are summarized here:

A firm's country of origin highly influences antecedents, strategies, and outcomes of the knowledge development process. Firms from developed countries have "knowledge advantage" and possess general knowledge about international markets derived from many decades of doing business abroad. It influences their strategies of acquiring knowledge and the type of knowledge that they need. Firms from EMs act as latecomers and are forced to apply more involved and risky internationalization strategies to develop their knowledge base faster and catch-up with the leaders. Due to local institutional conditions, it is harder for firms from EMs to absorb knowledge acquired in developed countries. Moreover, firms from EMs suffer from liability of foreignness to larger extent than firms from developed markets, due to lower status of their home countries.

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## APPENDIX 1: METHODOLOGICAL PROTOCOL

1. The aim of the review: to systematize and compare literature on knowledge development (including knowledge search, acquisition, integration and strategic use) among firms that originate from two different contexts: from EMs and from developed countries.
2. Criteria for country allocation to an EM category or to a developed country:

The list of 64 emerging countries from Hoskisson, Eden, Lau, and Wright (2000). As the authors summarized, to be included into the “emerging” category, a country should address the following criteria: legal and governmental institutions in a country are underdeveloped and less market-supporting comparing with North America and Europe, and the level of income is middle with a high level of GDP. In total, 64 countries were classified as EMs. Despite some of the countries has evolved from the “emerging” to high-income status since the 2000s (e.g., Hong Kong, Singapore, etc.), it is still perceived to be different from North America and Europe regarding norms, regulations, and traditions. Thus these countries remain in the list.

3. Initial criteria, defining the content of the review:
  - Systematic review process;
  - Empirical papers, thus including data analysis and statistical tests;
  - Time span: 2007 – 2017 inclusive;
  - The leading IB, strategy, management, and marketing journals: Journal of International Business Studies (JIBS), Strategic Management Journal (SMJ), Journal of World Business (JWB), International Business Review (IBR), Journal of Marketing (JMar), Journal of Marketing Research (JMR), Marketing Science (MS), European Journal of Marketing (EJM), Academy of Management Journal (AMJ), Academy of Management Review (AMR), Administrative Science Quarterly (ASQ), and Journal of Management (JMan).
4. Search Method (stage 1):
  - A full search of all related articles across the targeted journals;
  - Web of Knowledge database;

- Inclusion criteria by general keyword search;
- Initial focus on abstract and title;
- Keywords: emerging, developing, transition market/country, international strategy, internationalization, knowledge development, and organizational learning.

The search transcript for Web of Knowledge advanced search: TS=((emerging econom\* OR emerging countr\* OR developing countr\* OR transition\* countr\*) AND internation\* strateg\* OR internationaliz\* AND organiz\* learning) AND SO=(journal of international business studies OR strategic management journal OR journal of world business OR international business review OR journal of marketing OR journal of marketing research OR marketing science OR european journal of marketing OR academy of management journal OR academy of management review OR administrative science quarterly OR journal of management). Language: English. 2007-2017.

First sample: n = 335

5. Exclusion criteria:

- An article does not clearly represent the context of the study, thus is unclear where the article originates from and what is the targeted market/country;
- Theory, analysis and/or conclusions do not relate to the knowledge development process, in spite of the use of the relevant keywords;
- If a unit of analysis of a paper are state-owned enterprises or business groups, as knowledge development process in such companies and private-owned firms differs significantly;
- Conceptual, review articles.

6. Search (step 2). Manual reading of all papers and judging for inclusion/exclusion based on the parameters mentioned in clause 5. The second (final) sample for the analysis: n = 52.

## APPENDIX 2: ARTICLES INCLUDED INTO THE REVIEW

| Title   | Author(s)                            | Year | Context  | Theory  | Research question   | Main findings  |
|---|--------------------------------------|------|--|---|---|--|
| Journal of International Business Studies   |                                      |      |  |   |   |  |
| Accessing vs sourcing knowledge: A comparative study of R&D internationalization between emerging and advanced economy firms  | Awate, S., Larsen, M., & Mudambi, R. | 2015 | R&D internationalization of EMNEs and DMNEs (wind power industry) (India vs Denmark) | OL: catch-up, accessing vs sourcing knowledge                             | The study of EMNE R&D internationalization by comparing it to that by DMNEs in the context of an emerging, knowledge-intensive industry   | The greenfield R&D subsidiaries of the DMNE are initially at a lower knowledge level than their headquarters. The primary knowledge flow is in the form of a “teaching” flow from headquarters to the subsidiaries. In contrast, the EMNE is more likely to experience that its foreign R&D subsidiaries are at a higher knowledge level than the headquarters. Thus the main drivers of headquarters’ innovation catch-up are the “reverse” knowledge flows from these subsidiaries to the headquarters. EMNE headquarters’ innovation catch-up, which relies more on knowledge accessing, is harder and slower as compared with a DMNE R&D subsidiary that relies on knowledge sourcing. |
| Adaptation, bridging and firm upgrading: How non-market institutions and MNCs facilitate knowledge recombination in EM        | R. A. Corredoria, G. A. McDermott    | 2014 | Argentinean auto parts suppliers to MNE subsidiaries                                 | KBV: upgrading competencies through accessing knowledge and resources. AC | How knowledge from MNEs helps to upgrade capabilities, improve products and processes? How local institutions help/hinder absorptive capacity?  | Multiple strong ties to resource-rich organizations and institutions had a consistently positive impact on supplier process upgrading. Upgrading depends less on access to technologies, more on the ways local organizational and institutional networks help firms to absorb it – importance of creating supporting institutions to provide information, industry data, trends and standards, which is difficult to collect on firms' own.   |
| Agglomeration, catch-up and the liability of foreignness in emerging economies.   | Lamin, A., & Livanis, G.             | 2013 | Foreign and domestic firms’ R&D labs in India  | OL: acquiring knowledge through catch-up and location choices. IT: LOF    | Does the liability of foreignness or catch-up dominate location decisions (co-locating or not? and with whom) of domestic and foreign firms in EMs?   | Both foreign and domestic prefer to agglomerate with same- and cross-industry firms to have access to knowledge spillovers. Co-location enables firms to engage in observation and environmental scanning, and benefit from demonstration effects. Co-location is a strategy for those aiming to imitate technology that can be easily observed.   |
| Are the extent and effect of psychic distance perceptions symmetrical in cross-border M&As? Evidence from a two-country study | Yildiz, H. E., & Fey, C. F.          | 2016 | M&As between Sweden and China  | OL: knowledge transfer. IT: LOF, psychic distance                         | (a) how do relative status characteristics affect low- and high-status group members' perceptions of the extent of psychic distance between one another, (b) how do psychic distance perceptions affect post- | Larger distance is more likely to generate a lack of knowledge and understanding of each party's ways of doing business, leading to alienation, stress, and lack of commitment to the combined organization. Chinese respondents showed a stronger willingness to implement a Swedish acquirer's organizational practices compared with vice versa. It says that relative economic development levels of home and host countries is a significant  |

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|   |   |      |  |  | merger reactions, learning, and behavior?  | determinant of the extent of knowledge flows between sender and recipient units. Psychic distance perceptions could impede the success of post-merger integration.  |
| Autonomy delegation to foreign subsidiaries: an enabling mechanism for emerging-market multinationals                     | Wang, S. L., Luo, Y., Lu, X., Sun, J., & Maksimov, V. | 2014 | Chinese MNEs in developed and developing countries   | OL: subsidiary autonomy, springboard perspective. IT: LOF      | How does autonomy help to overcome LOF and enhance learning?   | Subsidiary autonomy assists EM firms in overcoming LOF, enhances learning and inward FDI, necessary in overcoming resource and capability voids. It as well distances the subsidiary administratively from the negative heritage associated with home-country institutions.   |
| Connections to distant knowledge: Interpersonal ties between more- and less-developed countries                           | Levin, D. Z., & Barnard, H.                           | 2013 | South Africa to developed countries (UK, US, Australia)                                    | OL: accessing/transfer knowledge                               | When business knowledge obtained from interpersonal ties (with compatriots now living in a more-developed country) is more useful than locally sourced knowledge?    | It is especially useful to seek knowledge abroad when the manager is in need for new-to-the-industry knowledge (the novelty of knowledge), and also when the manager already has strong ties with the contact abroad (the strength of the relationship); otherwise, the logistical and other difficulties of obtaining this new knowledge are too great, and we find that the manager would be better off contacting someone locally.   |
| Country-of-origin and industry FDI agglomeration of foreign investors in an emerging economy.                             | Tan, D., & Meyer, K. E.                               | 2011 | FDI in Vietnam   | OL: knowledge acquisition through location strategies. IT: LOF | Which foreign investors are likely to co-locate with FDI firms with the same country-of-origin rather than with foreign industry peers and under what circumstances? | Country-of-origin agglomeration is particularly relevant for gaining sensitive and tacit knowledge, for investors who perceive extensive institutional voids, and for those who lack local knowledge. Foreign entrants agglomerate to a greater extent than domestic firms, because foreign firms suffer from LOF, which affects their location strategy. In developed markets local firms do not pay much attention to location-specific activity, while in EMs locals actively agglomerate to get access to knowledge spillovers. |
| Do country-level institutional frameworks and interfirm governance arrangements substitute or complement in international | Abdi, M., & Aulakh, P. S.                             | 2012 | Partnerships of US' firms with firms from institutionally distant countries (37 countries) | OL: learning through partnership. IT: LOF                      | Potential of formal contracting and relational governance to overcome the formal and informal institutional gap  | Firms may offset the cultural barriers through learning. Informal arrangements developed at the relationship level have the capacity to overcome the difficulties engendered by dissimilarities in the informal institutional environment. In contrast, institutional and partnership-level formal arrangements are found to have a complementary relationship in which the positive relationship between contractual governance and performance is undermined at higher degrees of institutional hazard (dissimilarity).           |

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| business relationships?  |   |      |  |  |  |   |
| Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms   | Gubbi, S. R., Aulakh, P. S., Ray, S., Sarkar, M. B., & Chittoor, R. | 2010 | Cross-border acquisitions from India (mainly to US, UK, Germany) | OL: SAS acquisitions, asset-exploitation perspective       | International acquisitions facilitate internalization of tangible and intangible resources that are both difficult to trade through market transactions and take time to develop internally.                   | EM firms use internationalization as a spring-board to acquire strategic assets from diverse markets to overcome their disadvantages and become more competitive. Acquisition gives access to best practices, which gives valuable learning and opportunity to transform their routines.  |
| Failure to Complete Cross-Border M&As  | Zhou, C., Xie, J., Wang, Q.   | 2016 | Inbound and outbound M&A in BRIC                                 | OL: prior entry experience, experiential learning. IT: LOF | Factors, affecting the completion of cross-border M&A; how the impact of these factors differs in M&As to EMs and from EMs   | Acquirers from EM suffer from liability of foreignness more than the ones from developed countries. Past successful experience helps both, but acquirers from EMs going to DMs are more dependent on past experience, because they experience higher internal learning barriers.  |
| International experience and FDI location choices of Chinese firms: The moderating effects of home country government support and host country institutions. | Lu, J., Liu, X., Wright, M., & Filatotchev, I.                      | 2014 | FDI of Chinese firms to developed countries                      | OL: prior entry experience; KBV. IT                        | How government support of FDI projects and host country institutional environment interact with prior entry experience by Chinese firms.   | Home government support and well-developed host country institutions reduce the importance of prior entry experience and significantly increase the likelihood of FDI entry into a host country (home government support to the higher extent).   |
| Learning across geographic space: Pro-market reforms, multinationalization strategy, and profitability   | Dau L. A.   | 2013 | Latin American firms going to DMs                                | OL: knowledge acquisition, KBV                             | Pro-market reforms tend to increase the profitability of developing country firms, because they increase the competitiveness of local markets, allowing firms to increase their market-experiential knowledge. | The positive effect of pro-market reforms on profitability is higher for firms that operate internationally and in more advanced countries, because such firms acquire market knowledge that they can use to respond to reforms at home, which gives them advantage over other local firms. Importance of accessing useful and transferable knowledge to respond to reforms at home and get competitive advantage over other local firms. |

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| Offshoring innovation to emerging markets: organizational control and informal institutional distance.   | Sartor, M. A., & Beamish, P. W.         | 2014 | Japanese MNEs' subsidiaries in EMs                            | OL: knowledge sourcing. IT: informal institutions | How differences in the informal institutions influence MNEs' strategy with respect to subsidiaries established to offshore innovation   | Knowledge sourcing - establishing subsidiaries in EMs to get access to new product and process innovation, global talent pools, and avoid institutional differences. An increase in technological uncertainty and demand uncertainty causes an MNE's preference for reduced organizational control to minimize costs by learning from the partners. |
| Strategic Management Journal   |   |      |   |   |   |   |
| Confidence in learning: Inter-and intraorganizational learning in foreign market entry decisions.  | Li, J., Qian, C., & Yao, F. K.          | 2015 | U.S. manufacturing firms investing in China                   | OL: prior entry experience                        | 1) How the number of previous entries (made by investors) affect the level of confidence of later entrants in imitating them. 2) How learning from target firms varies with the learning firm's experience in the host country. | A firm's location decisions are influenced by learning from a reference group. The firm doesn't necessarily copy the most frequently used practices but learns from decisions made by the more experienced investors. For firms with experience in the host country learning from others becomes less important.                                    |
| Generic and specific social learning mechanisms in foreign entry location choice   | Belderbos, R., Olffen, W. V., & Zou, J. | 2011 | Japanese electronics firms' entries into Chinese provinces    | OL: knowledge acquisition through location. IT    | Why do firms cluster in specific locations abroad?  | Firms' location decision is dependent on the type of information they need. If they need to assess economic feasibility of entry, they locate with agglomeration and apply assessment learning. If they need to reduce firm-level uncertainty and increase legitimacy, they follow specific prior investors, thus apply bandwagon learning.         |
| Risk and the strategy of foreign location choice in regulated industries   | García-Canal, E., & Guillén, M. F.      | 2008 | Spanish firms in Latin America                                | IT, OL: experiential learning, prior experience   | Firms operating in regulated industries respond to the presence of risks in foreign locations in different ways depending on the nature of the risk and their own characteristics.  | As firms gain international experience and compare the post-entry performance of investments in countries with different levels of policy instability, they become more reluctant to enter countries that are politically unstable.   |
| When Experience Meets National Institutional Environmental Change: Foreign Entry Attempts of U.S. Firms in the Central and Eastern European Region | Xia J., Boal K., Delios A.              | 2009 | US firms to Central and Eastern European transition economies | IT: institutional change. OL: prior experience    | When a change in a national institutional environment does occur, do experienced entrants follow the same entry pattern established by their previous entries, or do they make a divergent change?                              | Firms with entry experience tend to resist environmental change, that favors a hierarchical entry strategy over a relational entry strategy. Relational entry experience provides a basis for how to select a partner, acquire knowledge, and resolve coordination problems. This knowledge is transferable in the same or similar context.         |

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| Whose experience matters in the boardroom? The effects of experiential and vicarious learning on emerging market entry.                 | Tuschke, A., Sanders, W. M., & Hernandez, E. | 2014 | German firms' FDI in EEs (Eastern Europe)                       | OL                                       | Experiential vs vicarious learning. Which ties matter most and how it influences learning outcomes?  | In novel situations such as emerging market entry, the focal firm seems to be most likely to act upon rich and fine-grained information provided by top managers of other firms that bring first-hand experience. Thus, experiential learning is more important in novel situations.  |
| Why strategic factor markets matter: "New" multinationals' geographic diversification and firm profitability                            | Kim, H., Hoskisson, R. E., & Lee, S. H.      | 2015 | Korean new MNEs (NMNEs) in developed and developing countries   | OL: SAS, experiential learning           | Examining firm profitability differences among NMNEs pursuing geographic diversification into two distinct types of geographic locations   | When NMNEs pursue geographic diversification into resource-poorer host countries, they are able to exploit their homegrown, firm-specific advantages and to take advantage of experiential learning efficiently. Learning is more complicated and takes longer time in resource-rich countries, however, experiential learning through diverse exposure to many resource-rich host countries helps NMNEs adapt to new resource environments better. |
| International Business Review   |  |      |   |  |  |   |
| Absorptive capacity development in Indonesian exporting firms: How do institutions matter?  | J. Gunawan, E. L. Rose                       | 2014 | Indonesian manufacturing-sector exporters (53% export to Japan) | IT, OL: AC / knowledge transfer          | How firms operating in a challenging institutional setting learn about entering international markets by using both sources of learning: internal (first-hand or direct experience) and external (second-hand or indirect). What type of knowledge is more beneficial? | Indonesian manufacturing exporters rely more heavily on second-hand experience for the development of their understanding about international markets. It suggests that the Indonesian institutional environment plays an important role in shaping how firms learn to internationalize, because Indonesian exporters rely mainly on local suppliers, who have little international experience.   |
| An event study of home and host country patent generation in Chinese MNEs undertaking strategic asset acquisitions in developed markets | Anderson, J., Sutherland, D., & Severe, S.   | 2015 | Chinese outward FDI to US, Japan, and EU                        | OL: SAS, knowledge accessing through FDI | Are Chinese MNEs able to absorb and exploit acquired foreign strategic assets?   | EMNEs try to move quickly to the technological frontier, using non-incremental learning processes by directly acquiring cutting-edge capabilities from their developed market counterparts to 'catch-up'. Strategic asset rich subsidiaries enjoy superior bargaining power over their "knowledge-inferior" parents and enjoy greater autonomy.   |

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| Control mechanisms of MNEs and absorption of foreign technology in cross-border acquisition   | B. I. Park, J. Choi                                     | 2014 | Korean firms, acquired by MNEs from Europe, the US or Japan. Cross-border M&A  | OL: AC, knowledge transfer                                    | What control mechanisms (management and operational) positively affect knowledge absorption from MNEs in cross-border acquisitions?   | Subsidiary's knowledge acquisition depends on factors associated with management control mechanisms. Open communication is the most obvious knowledge transfer approach. Propensity to learn is higher for geographically close countries, which share historical and social connections.   |
| Equity commitment under uncertainty: A hierarchical model of real option entry mode choices   | Wooster, R. B., Blanco, L., & Sawyer, W. C.             | 2016 | The US to Latin America and the Caribbean (28 countries)                       | OL: prior acquisition experience                              | Entry mode choices under environmental uncertainty  | Firms with higher international experience are more likely to choose non-equity expansion mode in the form of representative offices to engage in experiential learning prior to making heavier investments. Learning can reduce both endogenous and exogenous uncertainty.   |
| Foreign knowledge acquisition through inter-firm collaboration and recruitment: Implications for domestic growth of emerging market firms | Chen, P. L., & Tan, D.                                  | 2016 | Chinese firms with IPO. Collaboration with firms from more developed countries | OL: knowledge acquisition                                     | The impact of the two mechanisms of knowledge acquisition, i.e., inter-firm collaboration and returnee recruitment, on the performance of emerging-market firms in the local market | To speed up the learning process, EM firms often acquire advanced technology and managerial skills from developed countries. Hiring returnee managers can serve as an important source of foreign knowledge for EM firms. Entrepreneurial firms' flexible organizational structures may foster a cooperative and learning culture, which makes acquiring returnees' knowledge effective. In contrast, privatized state-owned firms are less likely to change due to organizational inertia, which, in turn, inhibits their capability of absorbing knowledge from hiring returnees. |
| Institutional forces in adoption of international joint ventures: Empirical evidence from British retail multinationals                   | Owens, M., Palmer, M., & Zueva-Owens, A                 | 2013 | British MNEs in South-East Asia  | IT. OL: knowledge sourcing                                    | Factors that influence the decision to adopt international JV by MNEs   | Learning through international JVs gives access to tacit knowledge, market knowledge, host country regulatory and social frameworks. The knowledge is used to build legitimacy, overcome liability of foreignness.  |
| Internationalization of emerging Indian multinationals: Linkage, leverage and learning (LLL) perspective                                  | Thite, M., Wilkinson, A., Budhwar, P. and Mathews, J.A. | 2016 | Indian MNEs investing to developed countries                                   | OL: LLL   | How the case study organizations have evolved themselves to become credible global players by leveraging on their learning  | Major acquisitions are made mainly in developed markets for intangible asset seeking and market opportunity seeking. Indian companies are engaging in overseas acquisitions to primarily gain access to customers in new geographical markets more quickly, to gain advanced technologies or products, and to acquire management talent with the mind-set and skills to operate businesses in more advanced or competitive conditions.  |
| Leadership positioning among U.S. firms investing in China  | Wooster, R.B. and Paul, D.L.                            | 2016 | US firms investing in China  | OL: prior experience. Awareness, motivation, capability (AMC) | How AMC characteristics influence international investment decisions?   | Willingness to be first movers in a new geographic market likely stems from confidence that the learning from existing multinational operations transfers to a new geographic region. Further, this stock of learning enhances capability to pioneer new foreign investment.  |

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| Localized learning by emerging multinational enterprises in developed host countries: A fuzzy-set analysis of Chinese foreign direct investment in Australia | Fan, D., Cui, L., Li, Y. and Zhu, C.J. | 2016 | Chinese FDI to Australia                                   | OL   | What motivates EMNEs to engage in localized learning in developed host countries?   | The efforts of establishing local networks are more desirable and advantageous if Chinese MNEs are willing to overcome local trade barriers, host country regulatory uncertainty, and achieve managerial efficiency.  |
| Microfoundations for learning within international joint ventures  | Park, J.Y. and Harris, S.              | 2014 | UK's Tesco IJV with Korean Samsung. Case study of Homeplus | OL: AC / knowledge transfer                | What are the capabilities, actions and decisions that help IJV managers to learn from their partners, to develop capability from that learning, and to build the absorptive capacity needed to do so. | Prior knowledge and experience, as well as the underlying educational level of the IJV managers, appeared to help the AC of the IJV and its speed of learning. Learning between partners from different national contexts is inhibited by different ways of social interaction and different understandings. If the partners have different organizational cultures, developing AC is especially complex. |
| Performance of foreign subsidiaries: Does psychic distance matter?   | Dikova, D.                             | 2009 | FDIs of West-European MNEs to Central and Eastern Europe   | OL: prior experience. IT: psychic distance | How prior experience helps to deal with psychic distance?   | A possession of market-specific information means that the investing firm understands the specific market and its characteristics such as business climate, culture, structure of the market system, and individual customers. It stimulates organizational learning about the new market and ultimately eliminates the effect of psychic distance.   |
| Skills and complexity in management of IJVs: Exploring Swedish managers' experiences in China  | Demir R., Soderman S.                  | 2007 | Swedish JV to China (9 case studies)                       | OL: AC                                     | Experience of Swedish managers in Chinese-Swedish IJVs in China   | The learning ability of the firm is based on (a) the specific institutional properties of the home country, (b) the firm's ability through internal practices and communication systems to overcome knowledge transfer inertia, and (c) the accumulated knowledge of host country characteristics.  |

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| The evolution of strategic asset-seeking acquisitions by emerging market multinationals                              | Elia S., Santangelo G. D.                | 2017 | BRIC acquisitions in the Triad (US, EU, Japan)                                | OL: SAS. IT  | The extent to which EMNEs engage in SAS acquisitions in advanced countries in relation to the strength of their home- and host country national innovation system (NIS).                       | EMNEs used SAS acquisitions as a compensation strategy for their relatively weak home-country NIS in the early phase of their internationalization, and that more recent SAS acquisitions by EMNEs are supported by relatively stronger home-country NIS. The weaker the host-country NIS, the greater the intention to engage in SAS in the early phases of internationalization.   |
| What does location choice reveal about knowledge-seeking strategies of emerging market multinationals in the EU?     | Jindra, B., Hassan, S. S., & Cantner, U. | 2016 | FDI from EMs to EU (UK, Germany, Spain, Italy, etc.)                          | OL: knowledge acquisition through location choices | To which extent EM MNEs are attracted by agglomeration economies and knowledge externalities?  | Foreign entry by firms from EMs is more likely, when a given region is characterized by a diversified industry structure in comparison to all other alternative regions. Investors from EMs use FDI to implement knowledge and asset seeking type of strategies in order to increase/enhance their ownership specific assets.  |
| Journal of World Business  |  |      |   |  |  |  |
| Accelerated internationalization and resource leverage strategizing: The case of Chinese wind turbine manufacturers. | Tan, H., & Mathews, J. A.                | 2015 | Chinese wind turbine manufacturers' internationalization to developed markets | IT. OL: LLL  | How firms from EMs globalize at an accelerated pace  | Accelerated internationalization of many EMMNEs has been facilitated by their LLL strategies. They all seemed to first enter the field by forming various types of partnerships with companies from developed countries in order to tap into sources of technological knowledge (linkage); they then quickly built their capability by capturing opportunities arising from the technological and market dynamics and exploiting advantages of both its foreign partners and itself (leverage); and they learned from technological leaders which ultimately lead to indigenous innovation that are adapted to the local context (learning). |
| Chinese enterprises in Germany: Establishment modes and strategies to mitigate the liability of foreignness          | Klossek, A., Linke, B. M., & Nippa, M.   | 2012 | Chinese FDI (acquisition or greenfield) to Germany                            | OL: prior experience. IT: LOF                      | To identify and to describe how entry mode choice impacts the strategies adopted by Chinese firms to cope (or not to cope) with the specific institutional and competitive hurdles in Germany. | Accumulation of experience and knowledge helped Chinese firms manage their market entrance into Germany. Knowledge and experience from previous relationships may be especially helpful for firms who enter a market through acquisition.  |
| Contextualizing experience effects in international business: A study of ownership strategies                        | Li, P. Y., & Meyer, K. E.                | 2009 | Taiwanese subsidiaries in developed and emerging countries                    | OL: prior experience                               | Examining the effects of international experience on MNEs' ownership strategy across a range of developed and developing economies   | In Europe, where institutions and the general business environment are more stable and transparent, investors would be able to apply their knowledge acquired in other countries. These benefits arise more from general international experience (GIE), rather than country-specific experience (CSE), because it can be transferred to other locations. Thus, GIE is more valuable in  |

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|  |   |      |   |   |   | developed countries, while CSE in EMs.  |
| Cross-border acquisition in services: Comparing ownership choice of developed and emerging economy MNEs in India                             | Lahiri, S., Elango, B., & Kundu, S. K.  | 2014 | Cross-border acquisitions in India from DCs and EMs.  | OL. IT: institutional distance  | How service MNEs from developed and EMs differ in their acquisition behavior?   | Due to prior experience and greater international competitiveness (comparing to EMNEs), MNEs from developed countries begin their foreign expansion by initially sharing ownership and control. The likelihood of full acquisition over partial acquisition becomes stronger when transactions involve high institutional distance.   |
| Emerging economies and institutional quality: assessing the differential effects of institutional distances on ownership strategy            | Liou, R. S., Chao, M. C. H., & Yang, M. | 2016 | Ownership strategies (cross-border M&As) of EMNEs (mostly BRIC countries) in developed and developing countries | OL: knowledge acquisition through partnership. IT: institutional distance | Differential effects of formal and informal institutions on EMNEs' ownership strategies   | Acquisitions afford the EMNEs opportunities to work with the local partner and access their knowledge about the market. EMNEs tend to secure higher ownership control to enjoy the governance efficiency when they conduct acquisitions in a country with better developed formal institutions and lower their equity participation and rely on the acquired firms to alleviate the legitimacy threat when they acquire a target in a country with large informal institutional distance. |
| Emerging market multinational companies' evolutionary paths to building a competitive advantage from emerging markets to developed countries | Kotabe M., Kothari T.                   | 2016 | 59-years longitudinal analysis of 16 companies from China, India  | OL  | How the EMNEs build their competitive advantage from home markets to developed country markets over time?                           | The knowledge and experience gained by EMNEs through their relationships with trade associations, institutions of higher education and MNCs in the home nations, enables them to enter into partnerships and sometimes even acquire firms from developed countries. The overall pattern of successfully entering developed economies involves putting emphasis on learning and knowledge sharing that leads to the innovation of the product and process.                                 |
| Institutional duality and political strategies of foreign-invested firms in an emerging economy  | Zhang, Y., Zhao, W., & Ge, J.           | 2016 | Foreign-invested firms from developed and developing markets in China   | OL  | How the complex institutional environment surrounding foreign-invested firms affects their corporate political strategies in China. | Foreign-invested firms from developed Western markets can learn about local political arrangements (guanxi) and adopt firm-based political tactics to engage the host government through collaboration with domestic or foreign business associations.  |

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| Integration and responsiveness in subsidiaries in emerging economies   | Meyer, K.E.,<br>Su, Y.S.                              | 2015 | FDI of West Europe and North America to Poland and Hungary             | OL                     | For which subsidiaries does a transnational strategy enhance subsidiary performance? Which strategy helps to integrate knowledge from all the subsidiaries?  | The competitive advantage of the transnational MNE is to a large extent created by organizational learning that connect, integrates and exploits this geographically dispersed knowledge. Transnational strategy is a good answer for MNEs with many subsidiaries in different countries, because it helps to integrate and use knowledge from all of them.  |
| Legitimacy and accelerated internationalization: An Indian perspective   | Bangara, A.,<br>Freeman, S.<br>and<br>Schroder, W.    | 2012 | SMEs founded in India, their FDIs to developed markets                 | OL: LLL                | How do EM SMEs build their legitimacy in Western markets to accelerate their internationalization?   | By using committed modes of entry early in their internationalization, which builds legitimacy, SMEs from EMs can access financial resources in Western markets to overcome their liabilities (newness, foreignness, emergingness and outsidership). LLL strategy facilitates accelerated internationalization of SMEs.  |
| Outcomes of learning through JVs for local parent firms in transition economies: Evidence from Russia                | Mihailova I.  | 2014 | Russian JV parent firms  | OL                     | Benefits of learning for JV parent firms in EMs.   | Local companies in EMs are more in need for market-based managerial capabilities than for technological ones. Knowledge and capabilities about how to operate in market conditions are no longer in high demand for local firms in EMs as it was argued earlier.   |
| Reducing cultural uncertainty through experience gained in the domestic market                                       | Hong, S. J., &<br>Lee, S. H.                          | 2015 | Korean MNE in different markets  | OL: knowledge transfer | Do firms with related experiential knowledge face less cultural uncertainty in the host country and therefore are more likely to enter the country than those firms without such foreign-market knowledge? | Transferrable knowledge (both direct and indirect) reduces cultural uncertainty. General knowledge is more effective and important for international business, because can be applied everywhere.  |
| Selecting the country in which to start internationalization: the non-sequential internationalization model          | Cuervo-Cazurra, A.                                    | 2011 | Moroccan firms going to different countries                            | OL                     | Which type of knowledge is beneficial in what internationalization strategies?   | In the home country a firm is able to develop dimensions of knowledge that are useful to overcome the difficulties of internationalization. A firm that operates in a B2B industry and that has an alliance with a foreign company in the home country is more likely to select a non-sequential internationalization.   |
| The influence of political risk on the scope of internationalization of regulated companies: Insights from a Spanish | Jiménez, A.,<br>Luis-Rico, I.,<br>& Benito-Osorio, D. | 2014 | Spanish MNEs in politically unstable markets (sample of 119 countries) | OL                     | Whether political risk has a diverse impact on internationalization strategy dependent on the particular industry to which the company belongs.  | A greater diversity of political environments has a positive impact on the scope of internationalization of Spanish MNEs. It will be stronger in those companies belonging to industries subjected to higher levels of regulation by the authorities, because such previous experience helps firms to create and develop political capabilities. More diverse experience leads to better (more positive) perception/attitude towards political risk. |

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| The interactive effect of time and host country location on Chinese MNCs' performance: An empirical investigation   | Yuan, L., Pangarkar, N., & Wu, J.  | 2016 | Chinese MNEs going to developing and developed countries          | OL                        | Examining the effects of internalization on performance in the immediate term as well as performance changes over time                                     | Expansion into developed countries results in a negative performance impact in the immediate term, but because of learning effects, MNCs' performance improves over time. To leverage the learning opportunities that developed countries provide, managers of developing country MNCs must proactively acquire knowledge from all potential sources, including customers, competitors, and regulators.   |
| What drives firms' intent to seek strategic assets by foreign direct investments? A study of emerging economy firms | Cui, L., Meyer, K. E., & Hu, H. W. | 2014 | Chinese FDI   | OL: catch-up, SAS         | What factors contribute to the level of SAS intent in internationalizing EM firms? What drives firms to engage in competitive catch-up with world leaders? | SAS FDI involves the acquisition of knowledge-based resources that exist outside the firm's boundaries such as technology, brands, and managerial know-how. SAS FDI is intended to renew a firm's core-competences by enabling radical improvements to its current knowledge base and competitive position. SAS FDI is extensively used by EM MNEs to aggressively catch-up with world leaders.   |
| Why do Chinese firms tend to acquire strategic assets in international expansion?                                   | Deng, P.                           | 2009 | Chinese M&As in developed markets                                 | IT, OL                    | Why more and more Chinese firms are investing especially in developed economies to acquire strategic assets typically by aggressive M&A?                   | By escaping to and operating in an institutionally more efficient, transparent and encouraging environment, firms are able to concentrate on building their knowledge basis and developing and upgrading their competitive advantages. M&A could help Chinese firms to engage in exploratory learning through establishment of partnerships with foreign sellers in developed markets, thus acquiring country-specific knowledge and leapfrogging to higher value activities.   |
| Administrative Science Quarterly  |                                    |      |   |                           |  |   |
| When Does Prior Experience Pay? Institutional Experience and the Multinational Corporation                          | Perkins, S.                        | 2014 | Foreign investments (mostly from DMs) in Brazil, telecom industry | OL, experiential learning | The conditions under which prior internationalization experience leads to performance  | The findings suggest that variations in learning contexts affect organizations' learning curves. Prior experience pays most consistently when the institutional environment is similar. Environmental context is integral to the organizational learning process and similar contextual factors are critical to learning outcomes. When firms try to apply irrelevant experience in a new country (not similar to country where the experience is from), the risk of failure increases, because managers overestimate |

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|   |  |      |  |                                 |   | performance outcomes.  |
| Journal of Marketing  |  |      |  |                                 |   |  |
| Indirect learning: How emerging-market firms grow in developed markets? | Banerjee, S., Prabhu, J. C., & Chandy, R. K. | 2015 | Indian firms in DMs, and U.K. firms in India             | OL. Knowledge acquisition       | Whether indirect learning (learning from the experience of others) plays a crucial role in explaining the phenomenon of EM firms that succeed in DMs? | In contrast to DM firms, which learn from their own experience, EM firms learn indirectly about how to compete in developed markets by acquiring this knowledge from leaders, competitors, and network members. The stage and pattern of business evolution is different in EMs than in DMs. E.g. EM firms often lack knowledge of how to compete in DMs and do not have the luxury of learning over time from their own direct experience in DMs, as internationalization occurs much later and in a more compressed time period. |
| The Academy of Management Journal                                       |  |      |  |                                 |   |  |
| Economic Distance and the Survival of Foreign Direct Investments        | Tsang, E. W. K., & Yip P. S. L.              | 2007 | FDIs from Singapore to more and less developed countries | OL. Exploration vs exploitation | Does the economic distance between a home country and a host country have any effect on the hazard rates of FDIs?                                     | Acquisitions represent a more efficient way than greenfields to get access to strategic assets and greenfields are in little help if firms are interested in resource exploration in more developed countries. Acquiring a local firm confers immediate access to its social networks, an advantage that can take a long time to develop otherwise.  |

(Codes for context: R&D = Research and Development; EMNEs = Emerging market Multinational Enterprises; DMNEs = Developed market Multinational Enterprises; MNEs = Multinational Enterprises; M&As = Mergers and Acquisitions; UK = United Kingdom; US = United States; FDI = Foreign Direct Investment; BRIC = Brazil, Russia, India, China; DM = Developed Market; EM = Emerging Market; SME = Small and Medium-sized Enterprise; JV = Joint Venture; IJV = International Joint Venture. Codes for theory: OL = Organizational Learning; KBV = Knowledge-Based View; AC = Absorptive Capacity; IT = Institutional Theory; LOF = Liability of foreignness; SAS = Strategic Asset Seeking; LLL = Linkage, Leverage, Learning.

## INTERNATIONALIZATION PATTERNS OF GERMAN START-UP FIRMS FROM THE CLEANTECH INDUSTRY

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### ABSTRACT

The purpose of this multiple-case study is to explore the perceptions of the founders of CleanTech firms about the internationalization behavior of these firms using the establishment chains of the Uppsala model (UIPM) as conceptual framework. The research design is based on the purpose of this study. This study uses a multiple-case study research design to get a better understanding about the internationalization behavior of CleanTech firms. Data was collected through six interviews of subject-matter experts and corporate documents to allow for triangulation. Data analysis revealed four themes to answer the research question. The findings suggest that CleanTech firms seem to prefer an incremental internationalization process and show a prudent internationalization behavior: (1) German CleanTech firms prefer to penetrate their home market first before considering internationalization. (2) The CleanTech firms use export market entry forms to enter neighboring markets. (3) The management teams seem to have little experience and expertise in the development and execution of international strategies. The two limitations sample size and methodology limit the generalizability of the results. The results of this multiple-case study bestow major significance toward practice. Investors like government funds or business angels, need to understand when a CleanTech firm has the potential for internationalization. Founders need the respective knowledge, experience, and resources, as do coaches working at accelerators and incubators to support these CleanTech firms in the design and the execution of their international strategies. This study contributes to the international entrepreneurship literature by illustrating the internationalization behavior of German CleanTech firms.

*Keywords: CleanTech, Renewable Energy, Sustainability, Uppsala Model, Export, International Entrepreneurship.*

### INTRODUCTION

CleanTech firms receive increasing interest from private and public investors (Doblinger, Surana, & Anadon, 2019). Due to the limited size of their home market and the public support (e.g., funding,

coaching), they should internationalize early and fast after the development of their minimal viable products, to become profitable and large enough to compete successfully with their international counterparts (Neubert, 2017). Therefore, it is necessary to better understand the internationalization behavior, the internationalization patterns and the processes of these CleanTech firms and how they differ from other high-tech firms (Asemokha, Ahi, Torkkeli, & Saarenketo, 2019) from other countries (Neubert, 2017; Neubert & Van der Krogt, 2018).

The purpose of this multiple-case study is to explore the perceptions, views, and opinions of the founders and senior executive managers of CleanTech firms about the internationalization processes and behavior of their companies using the establishment chains of the Uppsala internationalization process model (UIPM) (Vahlne & Johanson, 2017; Neubert, 2018) as conceptual framework. This study follows a call for research from Neubert and Van der Krogt (2018) to study the internationalization behavior and processes of high-tech firms from other industries and countries and two calls of research from Perényi, Á., & Losoncz, M. (2018) about the internationalization of social entrepreneurs and sustainable firms like for example from the CleanTech industry, and how and why young firms internationalize.

This paper is structured as follows: After this introduction, the literature review covers the most recent papers about the internationalization of CleanTech firms and the conceptual framework used in this study. The third chapter presents the nature of the study. This includes the research methodology, the sampling strategy and the sample description, the research question, as well as data collection and analysis methods. The results are presented in the fourth and discussed in the fifth chapter. This paper will conclude with a list of key findings, an analysis of the impact of the research results for academics, policymakers, and practitioners, as well as recommendations for further research.

## **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

The purpose of the multiple-case study is to explore the perceptions, views, and opinions of the founders and senior executive managers of CleanTech firms regarding the internationalization processes and behavior of these firms. This takes place as a conceptual framework by using the market distance and the market commitment establishment chains (Neubert, 2018) of the Uppsala internationalization process model (UIPM) (Vahlne & Johanson, 2017).

The UIPM distinguishes two establishment chains (Vahlne & Johanson, 2017). The market distance establishment chain describes an incremental market development process (see Table 1). CleanTech firms are expected to enter incrementally into new foreign markets depending on the lowest cultural, administrative, geographical, and economic distance between their home and the target market or the highest country familiarity (Clark, Li, & Shepherd, 2018). As the CleanTech firms of our sample are all

based in Germany, the first market entries might be expected in the same free-trade area, thus the European Union.

| Establishment Chains    | Market Commitment   |  |
|-------------------------|---|--|
|                         | Low   | High   |
| Low                     | Low risk market entry mode (e.g., export) to neighboring countries (e.g., EU) | High risk market entry mode (e.g., wholly-owned subsidiary) to neighboring countries |
| Market Distance<br>High | Low risk market entry mode to far away countries (e.g., China)                | High risk market entry mode to far away countries                                    |

Table 1: Establishment Chains of the UIPM as Theoretical Framework Source: author

The market commitment establishment chain shows that CleanTech firms are expected to enter new foreign markets with low risk market entry forms, for example, with different export modes (see Table 1). With increasing market knowledge and relationship development (Vahlne & Johanson, 2020; Vahlne & Bhatti, 2019), the CleanTech firms are expected to dedicate additional resources to this market (e.g., establish a branch office or a wholly-owned subsidiary) based on a decreasing liability of foreignness and outsidership as well as a better understanding about how to transfer their firm-specific advantages to this market (Neubert & Van Der Krogt, 2017; Neubert, 2017). This networking and learning ability drives the speed of internationalization (Neubert & Van der Krogt, 2018; Yamin & Kurt, 2018) depending on the level of digitalization of international decision-making processes as well as the international experience and expertise of the entrepreneur (Neubert, 2018; Coviello, Kano, & Liesch, 2017).

Besides the establishment chains of the UIPM, high-tech firms in their early stages of internationalization might also show uneven and discontinuous internationalization patterns (Kriz & Welch, 2018) or use different internationalization strategies (e.g., an opportunity-based market entry strategy (Neubert & Van der Krogt, 2020), or the Born Global or Lean Global Start-up model (Monaghan, Tippmann, & Coviello, 2020; Neubert, 2018; 2017). This occurs especially when they are from small and open economies (SMOPECs) (Neubert, 2018). As Germany can't be considered as a SMOPEC, this study uses only the conceptual framework of the UIPM.

## RESEARCH METHODOLOGY

The choice of the research method is based on the purpose of this study. The purpose of this study is to explore the perceptions, views, and opinions of the founders and senior executive managers of CleanTech firms as concerns the internationalization processes and behavior of their CleanTech firms. This study uses a multiple-case study research methodology to get an in-depth and holistic understanding about this specific phenomenon and to explore new themes and relations between them

using different sources of evidence, which may be transferable to similar cases (Yin, 2018; Merriam & Tisdell, 2019).

The following research question is based on the purpose and the nature of this study:

What are the perceptions, opinions, and views of the founders and senior executive managers of CleanTech firms about how their CleanTech firms internationalize?

Our purposeful sampling approach sought to recruit one senior executive manager and founder of each of the six CleanTech firms, which have successfully completed an accelerator program funded by the European Institute of Innovation and Technology (EIT) in 2019 (<https://eit.europa.eu/>) (see Table 2). All CleanTech firms are university spin-offs, which participated in the accelerator program to develop their business models and products, to get funding, and to acquire their first clients. Thus, they are deeply embedded in their national ecosystems. The CleanTech firms are part of the CleanTech Industry and offer innovative products to manage electric power grids with different sources of energy, to collect data about traffic and air pollution, to recycle batteries, and to store energy (Neubert, Rams, & Utikal, 2020).

|                       |  |          |         |         |           |           |
|-----------------------|--|----------|---------|---------|-----------|-----------|
| Number                | 1  | 2        | 3       | 4       | 5         | 6         |
| Product               | Software   | Software | Sensors | Sensors | Batteries | Batteries |
| Industry              | CleanTech  |          |         |         |           |           |
| Year of Incorporation | 2017   | 2015     | 2016    | 2018    | 2014      | 2018      |
| Background            | University Spin-Off / Participant in CleanTech Accelerator Program |          |         |         |           |           |
| Home Market           | Germany  |          |         |         |           |           |
| Patents               | No   | No       | No      | No      | Yes       | Yes       |
| Employees             | 28   | 23       | 8       | 6       | 12        | 5         |

Table 2: Case Study Firms Source: author

The six subject matter experts (SMEs) are all senior executive managers and founders of CleanTech firms with at least three years' experience as entrepreneurs. They hold university degrees in science and started their business ideas as university spin-offs. During the accelerator program, they developed the skills to manage a CleanTech firm successfully.

Data was gathered in October 2019 through a series of six video-telephonic, semi-structured interviews of senior managers and founders of CleanTech firms (including a reflective field journal to note observations about what is said and what is not said, consciously and unconsciously, direct and indirect) and through corporate documents such as business plans, strategic papers, product descriptions and client portfolios to allow for triangulation (Yin, 2018). The video-recorded interviews were transcribed electronically using the QDAS software NVivo and sent to the interviewees for member checking to strengthen the credibility and confirmability of the data (Merriam & Tisdell, 2019). Data analysis started with a careful analysis and complete immersion in the data. Data coding occurred with the QDAS software NVivo followed by a with-in and cross case analysis to explore similarities and differences (= replication logic according to Halkias & Neubert, 2020; Yin, 2018). The outcome of

the qualitative interviews was triangulated with archival documents in the form of the case study's business plans, strategic papers, product descriptions, and client portfolios (Yin, 2018) to enhance the dependability of the findings (Ravitch & Carl, 2019). The four themes emerging from the data analysis will be presented in the next chapter.

## RESULTS AND FINDINGS

The data analysis revealed the following four themes to answer the research question about the perceptions, opinions, and views of the founders and senior executive managers of CleanTech firms about how their CleanTech firms internationalize.

*Theme 1: CleanTech firms prefer to develop their home market first. Early and fast internationalization even within the European Union is not considered as an immediate strategic option.*

All SMEs have a strong national business focus due to government regulations and processes, their access to public funding, and finally their integration in the national CleanTech ecosystem and network. With the exception of SME 1, all other SMEs still expect a sufficient market potential in their home market. According to SME 5, one reason is "piggyback export", i.e. often B2B clients integrate the software, the sensors, or the batteries in their own products and export them. SME 2 states that the high investments to make their software legally compliant even in other markets of the European Union, prevented them so far from going abroad. SME 3 and 4 also sell their sensors to the local municipalities in their home market, which is a very specific market (requiring detailed market knowledge and an excellent network) with a huge potential. SME 5 and 6 still see a high market potential in their home market for their energy storages and battery recycling process. They are both open to international opportunities, but they are not actively pursuing them.

*Theme 2: If CleanTech firms internationalize, they focus on attractive markets within the European Union.*

Two CleanTech firms in this sample have already developed new foreign markets. SME 1 stated that their foreign markets are in the European Union due to government regulation and national security issues. Especially the latter makes it quite challenging to sell their electric power grid management software outside of the European Union. SME 5 acknowledges that they have an opportunity- or network-based approach. Besides their home market, they actively develop business opportunities in the European Union, but they are also open to requests for their energy storage systems from the rest of the world. The SMEs 2, 3, 4, and 6 are currently not planning to internationalize, but assume that they would focus on the European Union in the first phase of their internationalization.

*Theme 3: CleanTech firms use export market entry forms to internationalize.*

The statements of the SMEs suggest that they prefer export market entry forms. SME 1 and 5 state that they are using a combination of the market entry form "indirect export" with a distributor in each

foreign market and “direct export” through the online store on their website. The other SMEs also use the market entry form “direct export” through the online store on their English website to give potential clients the possibility to contact and to purchase their products. SME 2 adds, that they occasionally receive requests from potential international B2B leads through their online shop, but due to market adaptation needs and compliance issues they carefully check whether they should consider a delivery. All SMEs state that they are also thinking about piggyback export, when approaching potential B2B clients in their home market.

*Theme 4: The management of CleanTech firms has little experience and expertise in international entrepreneurship and management.*

SME 1 recognizes that their management team has a limited international experience and expertise, even though they get great support from their coaches. SME 1 considers it as a learning-by-doing process or an incremental internationalization process. According to SME 5, their management team has some more experience and expertise in international business, but still lacks important competences (e.g., the sustainable acquisition of clients in foreign markets). SMEs 2, 3, 4, and 6 admit that they have little or no experience and expertise in designing and implementing an internationalization strategy. They acknowledge that the participation in international conferences, trade fairs, and seminars is interesting, but certainly not sufficient; and therefore, prefer to use an incremental or step-by-step internationalization process.

The analysis of the archival data offers supporting evidence for this theme. The business plan and the strategy paper of the case study firms 2, 3, 4 and 6 include just a reactive and incremental internationalization and hence dedicate few resources to the development of the required competencies. The documents of the case study firms 1 and 5 include an internationalization strategy and their management teams consequently show a higher level of international experience and expertise.

| Market Entry Form<br>Region  | Direct export<br>(online / website)                   | Indirect export<br>(distributors)   | Piggyback export (home<br>market clients)                        |
|--|---|---|--|
| Other EU markets<br>depending on market<br>opportunities and<br>attractiveness | Passive:<br>Answer requests from<br>potential clients | Active:<br>In attractive EU markets,<br>they hire a local<br>distributor. | Passive:<br>Follow their existing B2B<br>clients to new markets. |

Table 3: Internationalization Process of CleanTech Firms (source: author)

## DISCUSSION

The results of this multiple-case study suggest that CleanTech firms consider internationalization only as a strategic option after they have successfully developed their home market. Internationalization should start in the neighboring European Union markets using export market entry forms due to

limited financial resources as well as limited international expertise and experience. This internationalization process and behavior seem to confirm the two establishment chains of the UIPM used as the conceptual framework of this study (Vahlne & Johanson, 2017). During the early stages of internationalization, the CleanTech firms in this sample prefer to enter neighboring markets in the European Union using low risk market entry forms (Vahlne & Johanson, 2017) or in other words prefer to combine a low market commitment with a low market distance (see Table 3). This internationalization strategy might be considered as a “Regional Exporter” model (Neubert & van der Krogt, 2020), even though it is still unclear whether internationalization becomes a better option for the CleanTech firms in our sample as soon as their home market is saturated and whether they will increase their market commitment as soon as they have the first successes abroad. The findings also suggest that the SMEs are not planning to consider a born global or lean global start-up model (Monaghan et al., 2020; Neubert, 2018; 2017). Another suggestion of the findings explores the reasons for this slow and late internationalization, which may lie in the missing international experience, internationalization knowledge and international networks. Underlying factors as the sufficient size of their home market Germany, the possibility to sell to exporting B2B clients, or high market entry barriers may confirm these reasons.

## CONCLUSION

The purpose of this multiple-case study is to explore the perceptions, views, and opinions of the founders and senior executive managers of CleanTech firms concerning the internationalization processes and behavior of their CleanTech firms using the establishment chains of the UIPM as a conceptual framework. The findings suggest that CleanTech firms of this sample seem to prefer an incremental internationalization process and show a prudent internationalization behavior based on the following key results:

Germany is not a SMOPEC, which forces the CleanTech firms in our sample to internationalize early and fast. Thus, they prefer to penetrate their home market first before considering internationalization. The CleanTech firms use export market entry forms to enter neighboring markets in the European Union. Therefore, they might be considered as a “Regional Exporters” (see Table 4).

| Establishment Chains | Market Commitment   |  |
|----------------------|---|--|
|                      | Low   | High   |
| Low Market Distance  | Low risk market entry mode (e.g., export) to neighboring countries (e.g., EU) | High risk market entry mode (e.g., wholly-owned subsidiary) to neighboring countries |
| High Market Distance | Low risk market entry mode to far away countries (e.g., China)                | High risk market entry mode to far away countries                                    |

Table 4: Establishment Chains of the UIPM as Theoretical Framework Source: author

The management teams of almost all CleanTech firms in our sample seem to have little experience and expertise in the development and execution of international strategies. It needs further research to understand whether this is a reason for their prudent internationalization behavior or the market potential of their home market, or something else.

The results of this multiple-case study have a high significance for practice. Investors like government funds, business angels, and venture capitalists need to understand when a CleanTech firm has the potential for internationalization and therefore need to dedicate enough resources accordingly. Founders, entrepreneurs and managers need the respective knowledge, experience, and resources as do consultants and coaches working at accelerators and incubators to support these CleanTech firms in the development and the execution of their international strategies.

One limitation is based on the research methodology. Even though we believe that the evidence resulting from the replication process of this multiple-case study may be utilized to extend theory (Halkias & Neubert, 2020), we assume that the findings just may be transferable to similar cases in Germany. The second limitation is based on the sample. Internationalization behavior and processes might differ depending on the industry, the management, and the home country. Thus, additional studies with corporate data from different countries (Vrontis, Basile, Andreano, Mazzitelli, & Papasolomou, 2020) and industries, and with different research methodologies are needed before results could be generalized.

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## DATA PROCESSING TECHNIQUES IN SOCIAL GRAPH STRUCTURES

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### ABSTRACT

This paper aims to present a concrete use case of an indoor positioning system used to harvest data about a small-sized population and interpret the data to identify clusters within and reveal strong affinities among subjects, acting as an analysis tool that helps stakeholders understand, in an unnoticed manner, what their clients are interested in, to better address their needs. A group of twenty people have used a software solution developed in previous own research initiatives that gather recordings from build-in smartphone sensors and trace the path a subject has followed inside a museum. Data modeling techniques applied on the collected sets provided structure and meaning to raw measurements, while graph analysis methods helped identify individuals with common interests and disclosed the most successful points of interest within the venue. The principles applied in this article emphasize how common devices can be used in a discrete, unperceivable manner in social analysis to determine human preferences that might further back recommendation engines, assisted learning and marketing campaigns. The methods and assumptions presented in this paper provide a cost-effective approach for cultural and educational institutions that are interested in better understanding their public through technology to build software solutions that on the one hand could outline their key strengths and on the other hand could reveal community interests that are worth being exploited for improved services quality and increased customer satisfaction, both influencing better financial results.

*Keywords: graph databases, indoor positioning system, social networks algorithms, entrepreneurship.*

### INTRODUCTION

The accelerated progress of information technology from the last decades contributed to a more connected world where data is constantly generated. Such extensive volumes of information determined the appearance of novel fields of activity like data analysis, where raw input is turned into meaningful evidence. This article aims to describe how an infrastructure free indoor positioning system might be used to harvest details about a small-sized population and what data processing techniques can be applied on the collected information to reveal common affinities of the members and identify clusters within. Enhancing author's previous work, the paper presents a concrete use case where the

above stated objectives compose an analysis tool that can help stakeholders understand, in an unnoticed manner, what their clients are interested in, to better meet their expectations.

Previous efforts in the field of knowledge acquisition revealed strong dependencies between the subject's personality and the proper technique to be used (Dehghani & Akhavan, 2017), as well as out of the box solutions to approach stringent marketing issues (Wagner & Zubey, 2005). This paper proposes a software architecture specialized in knowledge acquisition that is custom developed for cultural institutions.

According to the book "Cities, museums and soft power" (Lord & Blankenberg, 2015), museums fulfil four distinct roles:

- attract tourists and residents, acting as ambassadors for a particular area
- define the relationship between classes in society through the side they take in social campaigns and how they integrate the visitors in the daily activity
- create and share a vision, in conjunction with other cultural entities
- outline the character of a region, promoting either local or international exhibitions, being abstract or concrete, either open for diversity or rigid in what they display

Usually, museums have at least one permanent collection that defines the cultural site – the essence of the main exhibition identifies itself with museum's personality. Besides, other temporary exhibitions are held to educate the public and provide variety. These temporary exhibitions might be either specific to a time frame in history or belonging to an individual. Generally, the exhibits are curated around a main idea or theme to wrap the visitor in a predetermined atmosphere.

How museums decide what collections to display depends on various variables, among the most important being the relevancy, the budget, their long-term vision, as well as market demand. This paper is presenting an architecture capable of recognizing relevant vectors of influence within a group using ordinary devices and proposing an interdisciplinary approach that involves information technology solutions and strategies to monitor and harvest data about visitors in a natural sciences museum. Based on the collected information, several data processing techniques are applied to determine individual and collective characteristics in order to identify those subjects who share common interests. Further, the results might be used for better marketing strategies and more effective communication with potential customers through social media. Nevertheless, the methodology can be extended for more complex scenarios in different economic or social fields.

## **RELATED WORK**

Understanding human behaviors and predicting individual interests and actions has recently attracted much attention, with novel and ingenious technologies integrated to analyze, track and learn from

daily observations. One field, where thought-provoking results have been obtained, is Human-Computer Interaction, where robots or smart sensor grids monitor public venues in order to observe human typologies (Kelley, et al., 2008). For example, humanoid robots have been included in museums (Rashed, et al., 2015), (Shiomi, et al., 2007) and shopping centers to assist and learn about visitors (Kato, et al., 2015), (Shiomi, et al., 2009).

This article is proposing a different approach for achieving the objective of identifying collective interests, relying on common devices that are frequently used in museums, to avoid generating a general surveillance atmosphere that would interfere with normal human behavior. Studies have shown that people who know their actions are monitored tend to behave differently than in unsupervised circumstances (Jansen, et al., 2018), (Bateson, et al., 2006). Compared to the previously mentioned solutions, this concept intends to identify similar individuals within groups and recognize general characteristics for the observed population. Therefore, it is dependent on far less infrastructure, the design is intended for narrower context estimations, particularly targeting collectivities and underlying structures that favor cohesion.

## **METHODOLOGY**

The data collection phase required some technical prerequisites that have to be mentioned first, in order to understand how the values that would be further presented have been acquired.

Previous own academic initiatives fruitfully resulted in designing a microservices architecture around the producer-consumer pattern, where a custom-tailored service collects sensor information from the accelerometer and gyroscope available in a smartphone and stores them in an asynchronous manner in a Kafka cluster, in specific topics. Subsequently, other analysis modules are responsible for iterating the topics, processing the acceleration information and correlating the results with gyroscope details about the angle between the magnetic North Pole and the actual position of the phone at a particular timestamp. In this manner, the software solution behaves similarly to an attitude and heading reference system that is capable of estimating the current orientation of the device and distinguish when the subject is in a motion state. Consequently, estimating the mean step stride of an individual based on his height, the mileage can be successfully determined, and the actual followed path can be displayed on a floor plan.

This architecture has been adapted to record information about the current user in order to simultaneously harvest data from multiple individuals. The details about the user help identify the entries in the Kafka topics, since different instances of the application send HTTP POST requests that end up storing details in a shared repository. Twenty different devices that have access to this software solution have been distributed to the members of a control group inside a museum. For scientific

purposes, the members of the control group were asked to visit the museum and invest time in reading and learning about exhibitions they are interested in, without interfering with other group members. Subjects have had no time constraint for this experiment and have been asked to wear the phone attached to a lanyard, with the screen oriented towards them, in portrait mode, similar to regular wireless telecommunication devices that are available in museums for listening to audio guides. In this way, the data acquisition method has been comparable for every subject, preventing measurement errors. In absence of this requirement, there is a possibility that some subjects would put the phone in the pocket, others will hold it in their hands, some might have it in portrait mode, others in landscape and although the application is designed to consider the orientation and position of the phone while walking, such inadvertences might lead to erroneous measurements.

At the end of the experiment, the data collected have been processed and individual itineraries have been generated, motion sequences and the corresponding timestamps being emphasized. Correctly retrieving the exact location helped understanding when the subjects were in a particular exhibition, while the difference between the motion intervals represented the time spent in exploring or reading. The museum in which the experiment was initiated has twelve different exhibitions, each of them portraying environmental details regarding the flora and the fauna from various regions. In Table 1 is presented an overview of the first three exhibitions where each subject decided to spend the most time, as results from a preliminary processing phase.

| Exhibition name | First choice              | Second choice | Third choice |
|-----------------|---------------------------|---------------|--------------|
| Cavernicol      |                           | G, R          | B, K, T      |
| Extreme         | C, E, I, K, M, N, O       | A, F, S, T    | G            |
| Salt waters     |                           | B             | S, R         |
| Fresh waters    |                           |               | N, Q         |
| Danube Delta    | D, H                      | P, Q          | M, O         |
| Pontic          |                           |               | D, J         |
| Steppe          |                           |               |              |
| Continental     |                           |               | I            |
| Extinct         | A, B, F, G, J, L, P, R, T | D, I, K, M    | C, E, H      |
| Chinese         | S                         | C, E, L, N, O | A            |
| Romanian        | Q                         | H, J          | P            |
| Alpine          |                           |               | F, L         |

Table 1. *First three exhibitions where each subject decided to spend the most time*

## DATA MODELLING

The information collected from the aforementioned experiment might reveal interesting characteristics about individuals in the control group, as well as regarding the group as a whole. But before reaching any thought-provoking conclusion, the harvested raw data must be modeled following a structure.

Usually, software solutions that gather and process information, sooner or later require a mean of modeling and storing the data, for results to be operational and accessible at a future moment in time. Often, the solution that is opted for is a relational database, since the technology is mature and popular enough, there is plenty of research in the field that helped the domain evolve over the years, there are many different software solutions available and the developers community is broad and many possible problems that someone could face when developing a prototype application have already been addressed.

Relational databases work very effective for data models that are structured. Any Relational Database Management System, further referred in this paper as RDBMS, is backed by a database schema. This schema is useful for defining how the information looks inside the database, what kind of format it has, what properties the business model objects have, what relationships exist between different types and details about any existing constraint in the database. Still, such structures are not appropriate for data models that are strongly connected. The misconception comes right from the name, since RDBMS “should” probably be relational. The main problem is that in the RDBMS perspective, the most important actors are the tables that contain data in form of rows and columns and not the relationships between these tables. The term relational is inherited from the mathematical concept of relation, which in Edgar Codd’s relational algebra (Codd, 1970) identifies a table. This tabular format becomes ineffective when the information that has to be stored does not adhere to these principles. If the relationships between the entities are at least as important as the entities, then other database formats might behave better.

For example, the experiment detailed in the previous section contains two different entities, the people that visited the museum and the points of interest within the museum. Analyzed distinctly, without additional details, neither present enough entropy for an in-depth analysis. The entities gather relevance when the relationship between them are taken into consideration. For this particular conjuncture, the relationships are more important than the elements they connect, from an analytical point of view. The purpose of this paper is to understand how the information about the individuals’ behavior inside a public venue can be used to determine characteristic features about the sample population, which in the current context consists of twenty people and how can communities be identified within the population. Therefore, a graph database would be more suitable for this challenge, as the data set acquired before describes a social graph and graph databases prioritize the relationships between nodes and do not require a schema, constraints about a strict format being optional. Moreover, graph databases are optimized for data relationship queries, facilitating easy access to information at any level and in multiple combinations, which in traditional RDBMS would mean complex JOIN queries that require expertise and are time consuming. Different research teams (Khan, et al., 2019),

(Rufin, et al., 2011) stress tested relational and graph databases under similar conditions, their results advocating for the better performance of the latter choice. Further academic initiatives proved that a graph database can handle extensive and complex information with nodes that have billion connections within the structure (Femy, et al., 2016), (Warchal, 2012).

Considering this comparison between the two approaches and bearing in mind the goal of this research, the information acquired in the data acquisition phase has been translated into a bipartite graph with two distinct node types, Person and PointOfInterest, and in between a relationship from a person to a certain point of interest, a structure known in the specialty literature as node-arc-node triple, which further implies a subject-predicate-object determination (Hurlburt, 2015). The relationship holds details about the amount of time a person has spent in that point, while the nodes have labels with informative role. The subjects in the control group are represented by red nodes, labeled with letters from A to T and the points of interest by green nodes, each of them being labeled with an exhibition name. As the edges have numeric values associated that reflect the importance of that relationship in the structure, the outcome is a weighted graph.

The resulted graph is displayed in Figure 1.

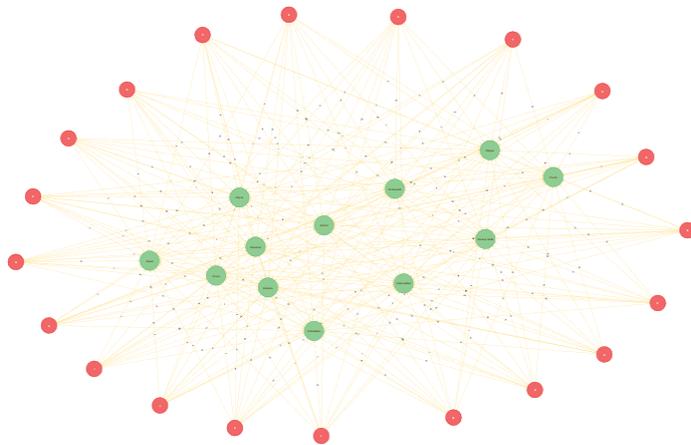


Figure 1. *Graph representation of the data set*

## DATA ANALYSIS AND RESULTS

Having the sample data represented in a graph structure is not automatically bringing simplicity, since in the detailed scenario every person node has interacted with every point of interest because of the continuous layout of the museum, where the visitors are required to pass through all exhibitions before reaching the exit. Therefore, as the software solution collects data about the subjects ten times per second, inevitably the Kafka cluster has recordings that recognize the presence of each individual in every exhibition and the analogous graph is connected. Moreover, each person node has a direct connection with each point of interest and inside this unprocessed structure the information is quite

vague, and no particular conclusion can be drawn just from a visual analysis. To identify some characteristic features that could be valuable in further analyzes, the information has to be refined.

One possible opportunity is to determine the Pearson correlation coefficients between the subjects, to identify individuals with common interests. For weighted bipartite graph structures there are some procedures that facilitate this operation, computing coefficients for each node in relation to any other node of the same kind. The algorithm is symmetric, the relationship between two analyzed nodes being bidirectional. Simply put, if a node A has a certain similarity coefficient K relative to a node B, then node B has the same K similarity relative to A. The resulted coefficient ranges from a negative -1 to a positive +1, where negative values suggest there is a linear correlation between the nodes and while one increases, the other decreases. For a positive coefficient, the relation is opposite, when one value increases, the other follows the trend.

In Table 2 there are the Pearson coefficients obtained for the control group that exceeded a threshold value of 0.5.

| From | To | Pearson correlation coefficients |
|------|----|----------------------------------|
| A    | E  | 0.923113940466948                |
| A    | C  | 0.9111225507155134               |
| A    | I  | 0.8069782270481494               |
| A    | F  | 0.7937126757049411               |
| B    | R  | 0.9219887404337949               |
| B    | G  | 0.6426441920942519               |
| C    | E  | 0.9451409494381612               |
| C    | I  | 0.7268049669072251               |
| C    | F  | 0.6715978987270229               |
| D    | H  | 0.778143059788344                |
| D    | J  | 0.6558059529798437               |
| E    | I  | 0.7567289512844475               |
| E    | F  | 0.6078902673087607               |
| F    | I  | 0.7910337503070567               |
| F    | M  | 0.6662098891778447               |
| F    | N  | 0.6652553308109705               |
| F    | K  | 0.6173034609216967               |
| G    | K  | 0.7649088017086941               |
| G    | R  | 0.7034842659650946               |
| G    | T  | 0.6065464412163504               |
| H    | P  | 0.6718338703339822               |
| I    | N  | 0.7426298110657636               |
| I    | P  | 0.6049113453529312               |
| K    | R  | 0.6308665590694292               |
| K    | T  | 0.6126443428866462               |

Table 2. *Pearson correlation coefficients between group members*

The Pearson coefficients associated to the data in Figure 1 emphasize different pairs of students that seem to have had similar behaviors during the observation period. For the undertaken experiment, it means that distinct subjects have spent comparable amounts of time in similar points of interest. As a general statistical rule, correlation is different from causation and such limited evidence is insufficient to draw bold conclusions about overall human personality, just because reducing human personality to a model dependent only on one variable would be a mistake. Though, the experiment cannot state that two students with a Pearson coefficient over 0.90 are likely to act similarly in certain circumstances just after this analysis, but rather assume that two individuals that have spent similar amounts of time in similar exhibitions are perhaps passionate about related topics. Concretely, if both students A and E had spent the most time in the exhibitions dedicated to extinct and extreme environments, then would be recommended for a supervisor or teacher to inspire their curiosity in this direction and provide them additional materials regarding the conditions that led to environments extinction, what measures could have prevented such outcomes, as well as to encourage them to identify feasible solutions that could save extreme environments from going extinct, too. It is more likely for the students to invest quality time and efforts in such initiatives, compared to a homework about an exhibition where both were not engaged, like Danube Delta. Such experiments lead to individuals' specialization, outlining in an explicit manner the fields where someone is susceptible to being productive and effective. Extrapolated to a larger degree, in the educational field, such techniques can be used to reveal what topics trigger commitment from a student, which in a causal relationship might lead to a state where a cumulation of factors could influence a career choice, one that the student opts for instead of being influenced by social stereotypes or preconceptions. Such long-term observation procedures can assist psychological or personality tests that usually career counselors give to students in high school to help them understand what fits better their aptitudes.

With such information available, any stakeholder can determine communities within the population, having the necessary tools for creating cohesion by bringing together individuals with similar concerns. Communities thus created are expected to outperform competitors in fields where their observed affinities manifest.

Another graph processing method that is relevant in this context is a degree centrality variation. Originally proposed by Linton Freeman in his research paper "Centrality in Social Networks Conceptual Clarification" (Freeman, 1978), the algorithm is capable of identifying the most popular nodes within a graph, as well as computing standard deviation across the structure or a minimum, mean or maximum degree. Although relevant in the field of social networks processing techniques, degree centrality is not suitable for bipartite graphs, its particularities being valuable just for distinguishing instances with special features within groups of entities of the same kind. An equivalent

of the degree centrality algorithm has been adapted in this paper to determine those points of interest where the people have spent the most time during the museum experiment.

For the control group the most interesting exhibitions have been those intended for extinct and extreme environments with 343, respectively 295 minutes dedicated to reading informative messages, watching presentations and observing environmental details. The complete analysis regarding the monitored population is detailed in Table 2.

| Exhibition   | Time spent (minutes) |
|--------------|----------------------|
| Caves        | 215                  |
| Extreme      | 295                  |
| Salt waters  | 247                  |
| Fresh waters | 193                  |
| Danube Delta | 247                  |
| Pontic       | 182                  |
| Steppe       | 206                  |
| Continental  | 240                  |
| Extinct      | 343                  |
| Alpine       | 224                  |
| Chinese      | 232                  |
| Romanian     | 258                  |

Table 3. *Degree centrality for point of interest nodes*

From these results, several quantitative statements can be elaborated:

- the group has a predisposition towards extinct and extreme environments
- national iconic environments together with pelagic environments describe a secondary cluster, most of the exhibitions that present these environments being second choices for those who appreciated the most the extinct and extreme habitats
- at the opposite pole, environments with reduced diversity, like Black Sea, rivers or steppe, have been easily overlooked

A graphical representation of the museum's floor plan is depicting the areas that each person from the control group considered the most interesting, based on the time spent there.

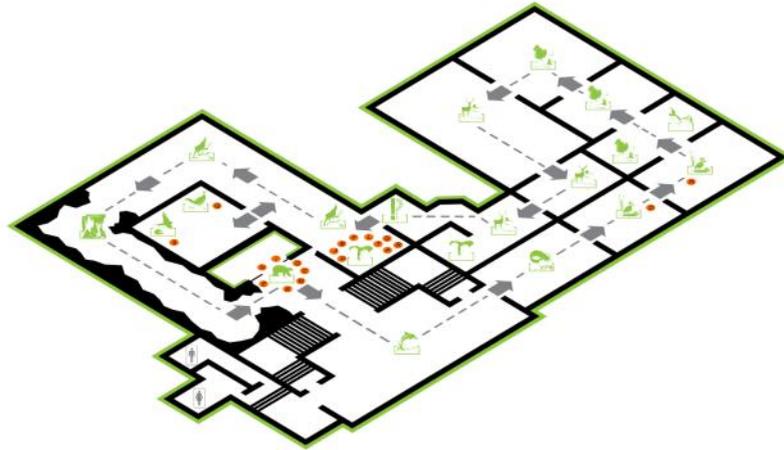


Figure 2. *Most interesting points of interest according to Kafka recordings*

General characteristics at collective level help identifying the most relevant vectors of influence for a predetermined population. Such findings overcome this experiment and encourage extrapolation for larger communities in more varied contexts. For example, a comparable approach applied at a large scale for the customers of a library could reveal what topics are shared by the most citizens within an area. Similarly, the same principles applied in a supermarket could predict food habits that, correlated with additional information about the subjects, are able to determine citizen typologies. Concretely, if the customers aging from 18 to 30 years spend most of the time in the raw, natural, unprocessed, vegan departments, local authorities could assume that younger generations are more preoccupied by their health, which influences the perspective of a longer and healthier life, whilst long time intervals spent in sweets, alcoholic or highly processed food departments should sound an alarm for the concerned actors, as all the aforementioned categories are less beneficial in the long run and contribute to deterioration of health.

To encourage the usage of such solutions, stakeholders can apply gamification methods, providing participants social platforms with scores and prizes for most active users to boost engagement. Also, for commercial scenarios like the supermarket or the library, discounts or gift cards can be offered in exchange for the customers to use the application while inside. Such approaches not only can be used to provide relevant recommendations and discounts for the customers which they are more likely to profit from, but also as a secondary mechanism for identifying acquisition seasonality in the product portfolio.

## IMPLICATIONS

The outcomes obtained from the use case conducted in the natural sciences museum have been further double-checked with both the group members and their tutor, that confirmed the findings were

accurate. As a consequence, such approaches prove effective in identifying particular features and similarities among individuals based on their behavior, rather than directly interviewing them. One major implication of this technique is the generality it provides, being efficient in collecting information from introverts and extroverts alike, characteristic which in traditional interviews usually lack, as the introverts on the one hand avoid being open to unfamiliar interviewers and on the other tend to present a shallow version of reality, fearing from being stigmatized.

A second implication is the light architecture of the system that perfectly scales up with twenty different devices that simultaneously gather data, without involving extensive hardware resources. The entire processing is supported by an average price laptop, which allows information technology enthusiasts to experience without depending on cloud infrastructures.

Last but not least, this is one of the first initiatives interested in knowledge acquisition that comprise the environment where the data is produced, and the methods required for information harvesting and processing. Most of the social graph experiments so far rely on information collected from public APIs exposed by social media platforms. Differently, this paper would like to encourage cultural institutions to model their daily activities, to identify their potential strengths and weaknesses and take informed, data backed decisions.

## CONCLUSIONS

This paper has detailed several use cases of a software architecture developed from previous own research initiatives, capable of precisely determining indoor location in public venues. Such applications aim to assist people in indoor navigation and provide complementary services, derived from the knowledge acquired in the process. In a business-oriented environment, the techniques described in the previous chapters could be adapted to supply customers a recommendation engine that is able to provide suggestions based on observed patterns on different subjects that have similar behaviors. Such recommendation engines have already been adapted by the most innovative online sellers worldwide, being programmed to harvest information about the customers and to process the acquired details, outlining personal profiles and preferences. These profiles are further enriched and refined to provide custom-tailored suggestions, advertisements or promotions that exploit the user's affinities, interests and needs.

In a digitalized world, where data has become the most valuable asset (Economist, 2017), businesses that are capable of understanding their customer profiles, foresee and adapt to future changes and adjust their services and products accordingly are those to impose, to gain market share and capitalize. Graph databases are a versatile technology that simplifies data processing operations for large data banks describing social networks and provide powerful and effective algorithms for complex data

retrieval. Pearson correlation coefficients and degree centrality methods exposed in this paper identified collective features for the control group, as well as clusters of individuals who share common interests, which could trigger further individual specialization processes, providing subjects with materials and tasks that could challenge their aptitudes and drive them out of their comfort zone to acquire more knowledge and perform better.

In different setups, the same principles can identify key components to be exploited in marketing campaigns, delivering customers personalized messages that target their interests and needs, with increased return of investments and high commitments rates. Social analytics are expected to improve services quality, increase customer satisfaction and provide better financial results.

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## SKIN AS A COMMUNICATION MEDIUM

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### ABSTRACT

Scientific research has confirmed that tattooing as a means of personal expression has been a ritual practice for centuries in many cultures. Tattoos had different meanings in different time contexts, both from the inner perspective of the person "wearing" the tattoo and from the outer perspective of the observer. Today, it is impossible to find a football player, singer, actor or athlete without a tattoo on the body. This trend has been embraced by many individuals and introduced into their daily lives as an integral part of their style.

This paper aims to present the most significant results of worldwide research related to the phenomenon of tattooing, starting from motives that encourage individuals to such body modification, research studying the lifestyle of tattooed people and their chances in the labor market and all the way to research that brings tattooing into correlation with mental illness.

The results of the research showed that there are a dozen basic motives that lead individuals to get a tattoo, but in recent research, the largest number of respondents state that they get a tattoo to feel more attractive and appealing. Visible tattoos reduce the possibility of employment for jobs where you work with clients, like cashier or teacher jobs. Recent research has shown that there is no significant correlation between tattooing and mental illness.

The purpose of this paper is to contribute to a better understanding of the communicative aspect of the tattoo phenomenon.

*Keywords: tattooing, body modification, social perception of tattoos, tattoos and the labor market*

### 1. INTRODUCTION

The research aims to collect and summarize as much available scientific research on the phenomenon of tattooing to better understand the communication aspect of the phenomenon of tattooing. Tattoos have fascinated humanity for centuries in various cultures and social strata (Oanta, 2014). From ancient Egyptian, Greek, and Roman culture, through Maori tribes to modern-day society, tattoos have been used to emphasize beauty and uniqueness, mark affiliation, and sometimes even to mark, shame or punish. Given the rise of popularity of tattoos, they are taking back their historical purpose of providing the observer with the information about a person which makes them a tool of the nonverbal communication. Tattoos as a form of communication, have not been researched at length that fits the

upward trend, thus providing an opportunity to better determine communication aspects of the phenomenon of tattooing in the field of communication, and contribute to the said field.

Probably the oldest book dealing with the phenomenon of tattooing was published in 1590 entitled "A Brief and True Report of the New Found Land of Virginia" by Thomas Harriot. The pictorial representation of the tattoos was made by the Belgian artist Theodore de Bry. As Bry never set foot on American soil, he based his engravings on drawings and sketches he received from more gifted colonizers. In his engravings of the Indians, he paid special attention to their tattoos and other ways of adorning the body. Although his depictions have no special ethnographic value today, as the author himself has never seen the protagonists of his works live, his work is historically important because his engravings published in this book are also the first published European depictions of tattooed people that inspired numerous subsequent discussions and studies on tattoos (Schildkrout, 2004).

The first serious study of tattoos was published under the title "Anthropometamorphosis" (1653), by the British Protestant physician John Bulwer, who strongly condemned any body modification, and considered the tattooed body of a native a sign of savagery and incivility, while a pure body was a characteristic of a civilized Christian. Such an attitude about tattoos will be present in the European public for the next few centuries. "The tattooed savages/pure civilized dichotomy easily entered the European discourse at the time simply because it was useful, and it will take several hundred years to develop a somewhat more objective and scientific approach" (Dorotka, 2017).

British anthropologist Anne Walbank Buckland reflects on tattooing in the past in her article "On Tattooing", saying that this form of body decoration was probably accepted and widespread at a very early stage of human development. The author emphasizes that the prevalence of tattooing is declining with the progress of civilization and the beginnings of the use of clothing as a less painful way of decorating the body (Buckland, 1888). This article, among other things, deals with reflections on the role of tattoos in individual societies and in different cultural discourses where tattoos can have an initiating, magical and status role (Buckland, 1888).

In modern Western societies, as early as the 1970s, tattoos were a cultural taboo, typically associated with individuals from the margins of society such as prisoners, gang members, and other members of marginalized and subcultural groups. Tattooing has become planetary popular in the last ten years. Individuals communicate with their surroundings through tattoos. A tattoo is a driver, a mediator in the communication of symbols. According to Wilson (2008), tattoos are active, in moments of exposure to others they project symbols to others. Tattooed skin becomes a medium through which an individual can convey his experiences, attitudes and his view of self and thus communicates with his environment. Tattoos polarize the opinions of people who are either extremely positive or extremely negative and very rarely neutral.

## 2. METHODOLOGY

The methodological approach of this research was qualitative, and the main technique of data collection and analysis was the analysis of content from the available literature review. PRISMA literature search methodology was used in the preparation of this paper. The following exclusion/inclusion criteria were taken into account when conducting the research:

- years included in the search period 1970 - 2019;
- search keywords present in the abstract and title;
- duplicate removal;
- filtering importance, so that books published in recent times, scientific articles, national studies and other available researches were considered the most important.

The search criteria were combinations of the following keywords: tattoo(s) or tattooing, motifs for tattooing, social perception of tattoos, labor market and tattoos, adverse effects/health reactions of tattoos. The final number of abstracts read in recently published books, scientific journals and national reports, with the required keywords is 94. After that, all texts published before 1970 were taken as historical, and the content of the paper included research published in 13 scientific articles.

The research sought to find answers to the following research questions:

1. What are the basic motives for body modification with tattoos?
2. Can tattoos be associated with a particular lifestyle of the people who own them?
3. Are the chances in the labor market the same for tattooed and people without tattoos?
4. Is there a correlation between tattoos and the mental health of people having them?

With those questions in mind, the goal of this research is content analysis of the chosen articles with the purpose of understanding communication aspects of the tattooing phenomena.

## 3. RESEARCH RESULTS AND DISCUSSION

Extensive research on recent tattoos was conducted by the German agency *Dalia Research GmbH*, whose main activity is conducting social research. The agency conducted the survey by surveying respondents from Argentina, Australia, Brazil, Canada, Germany, Denmark, Spain, France, UK, Greece, Israel, Italy, Mexico, Russia, Sweden, Turkey, USA and South Africa. The research was conducted through a survey in April 2018. on a sample of 9054 respondents. Respondents were accessed via the Internet. The following are the key conclusions of the conducted research (Dalia Research GmbH, 2018). Italy has the highest percentage of tattooed people, i.e. 48% of respondents. Italy is followed by Sweden where 47% of respondents are tattooed and the USA with 46% of tattooed respondents. Israel has the lowest percentage of tattooed people among respondents (25%). As for the number of tattoos, respondents from the US have the highest number of tattoos so the median is approaching the number of 4 tattoos.

Greece has the lowest median number of tattoos among respondents and it is 2.5 tattoos. Among respondents who have tattoos, as many as 45% are between the ages of 30 and 49 while 32% of respondents are between the ages of 14 and 29. When asked if they regret getting a tattoo, as many as 72% said no. Based on the research by the German agency *Dalia Research GmbH*, it seems that tattooing has turned into a socio-cultural phenomenon, which is spreading in the modern world like an epidemic. Although it seems that tattooing is still not fully socially accepted, decorating the skin with tattoos has become a part of everyday life, and it is chosen by a large number of people, regardless of gender, age, social status or level of education.

Body tattooing throughout history has been inspired by the motifs of a religious, ritual or aesthetic character (Rubin, 1988). It has been present at different stages of civilizational development, in different cultures and on almost all continents. Body decoration with tattoos has survived to the present day, and during different historical periods, it has been subject to fashion and trends, just like clothing, footwear or jewelry. What are the motives of decorating the body with tattoos in the modern world? In an article published in the journal *ScienceDirect* (Wohlrab, et al., 2007), the 10 key motifs that lead individuals to get a tattoo are systemized. The insights gained by Wohlrab et. al. are a summary of research by numerous authors.

The first motif is related to fashion, beauty and art. Thus, some people get tattooed because they believe that the tattoo will be a fashion accessory that will complement their fashion expression, or they consider the tattoo to be a work of art on their own body (Stirn, 2004b). One of the motives for tattooing is to emphasize one's own identity, i.e. the individual characteristics by which a person wants to be distinct, recognizable and distinguished from others (Milner & Eichold, 2001). The motivation for tattooing can be different life stories of people who experience personal catharsis through this act or consider it a way of taking control of their own body (Caliendo, et al., 2005). Very often abused people "fix" their body through tattoos and this leads to self-healing (Stirn, 2004.b). Tattooing is a way of proving courage (Atkinson & Young, 2010). Stirn (2004b), on the other hand, believes that tattooing can be a reflection of self-destructive intentions. Very often tattoos are a sign of belonging and loyalty to a group or subculture (Milner & Eichold, 2001). Tattoos are very often also proof of lasting devotion and love to a person or group. Tattoos can also be a way of expressing rebellion, for example, adolescents towards their parents or rebellion towards imposed value systems (Stirn, 2004a). Tattoos inspired by religion, spirituality, and cultural affiliation are also very common (Jeffreys, 2000). Authors such as Vale and Juno (1989) believe that tattoos are addictive. During tattooing, due to the painful penetration of the needle into the skin and strong motivation to make a tattoo, endorphins are secreted, which leads these people to repeat tattooing. Many people with a large number of tattoos state that the tattoos remind them of the events, experiences, and value systems that moved them at the time of the tattoo.

The inspiration for making a tattoo can often be a desire to emphasize one's sexuality and a person's belief that they will be more sexually attractive with tattoos (Fried, 1983). Some people make tattoos very impulsively and do not have any special reasons for it, while others know how to make tattoos while under the influence of alcohol and drugs (Friederich, 1993).

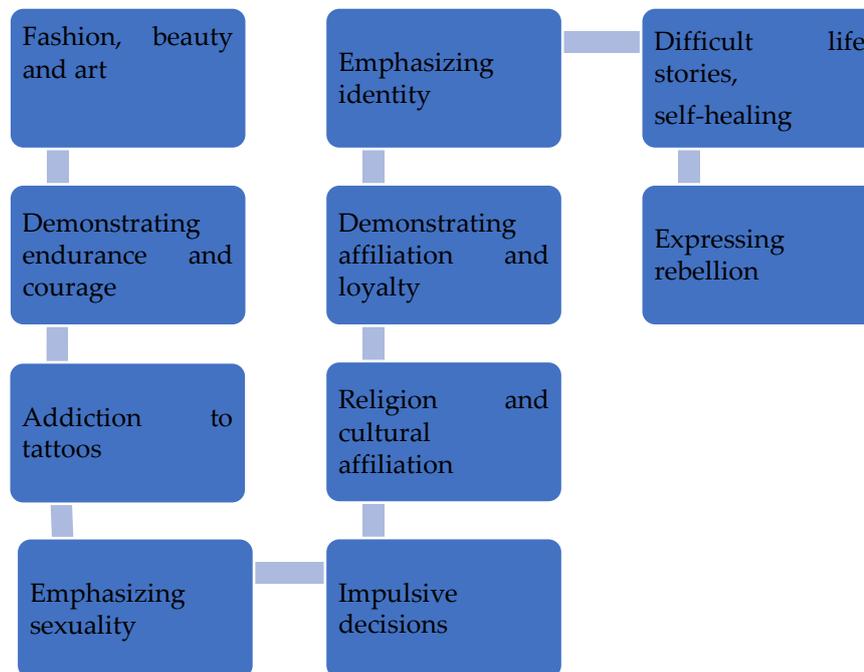
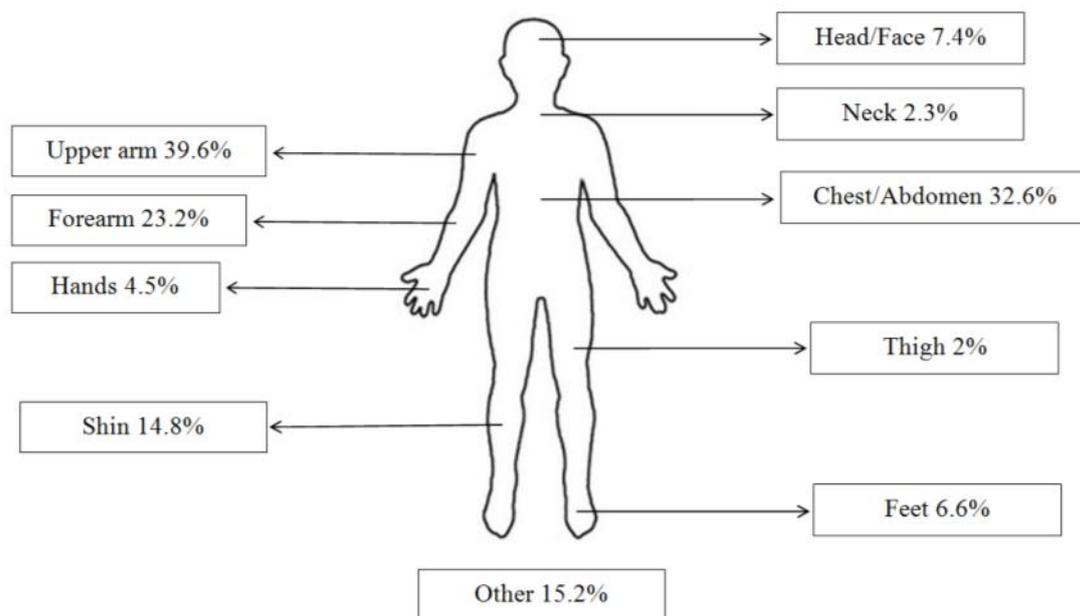


Figure 1. *Ten Motivational Reasons to Make a Tattoo* (Wohlrab, et al., 2007)

The following research was conducted by *The Harris Poll Agency* (2016). The survey was conducted online in the U.S. from October 14 to 19, 2015. among 2,225 respondents over the age of 18. Data on age, gender, race/ethnicity, education, region, and household income were weighted where necessary to align with their actual population proportions (Shannon-Missal, 2015). As part of this research, tattooed respondents were asked the question: "Compare your feeling about the tattoo with the situation if you didn't have a tattoo". One third (33%) of adults with a tattoo stated that the tattoo made them feel sexy and that the tattoo made them attractive (32%). Just over a quarter (27%) say they feel more rebellious, and 20% of respondents feel more spiritual because of a tattoo. Fewer respondents stated that a tattoo makes them feel more intelligent (13%), 13% of respondents have a sense of respect, 10% of respondents state that a tattoo makes them feel more employable and 9% of respondents feel healthier. Most respondents state that having a tattoo is an immeasurable feeling. The study indirectly suggests 10 motivational categories according to Wohlrab, et al. (2007).

*The Harris Poll* study also followed the trends in the feelings that tattoos created in respondents according to surveys from 2003, 2008, 2012 and 2015, which showed that most respondents feel attractive and sexy because of the tattoo, and it can be concluded that one of the basic motives of the respondents for making tattoos in recent times is fashion, beauty and emphasizing sexuality.

A scientific article entitled "*Tattoos, Lifestyle and the Labor Market*" was published by the *Forschungsinstitut zur Zukunft der Arbeit* in Bonn. (Dillingh, et al., 2016). The article based its stronghold on a panel survey conducted since 2013 through a monthly longitudinal survey of 512 respondents. Respondents were accessed via the Internet. The panel was based on a sample of Dutch households taken from the census. The research was conducted by *CentERdata* (Tilburg University, The Netherlands). This study looked at the relationship between visible tattoos with work status, individual's income, subjective feeling of health, and the use of drugs and opiates. During the research, a control group of subjects who were not tattooed was formed. Tattooed subjects most often had tattoos on their upper arms, abdomen, and forearms.



**Figure 2.** View of the tattoo location of the respondents ( $N = 512$ ), (Dillingh, et al., 2016)<sup>1</sup>

<sup>1</sup> Note: The sum of the percentages in the figure exceeds 100% because some respondents had tattoos in multiple places.

Respondents' tattoos contained text, very often names, in 25% of cases. The most common tattoo motifs were animals, hearts, stars, crosses as well as tribal or Celtic motifs. Many tattoos symbolized themes like love and family, freedom and religion. Several respondents reported that their tattoos were associated with an important life event, either positive (such as the birth of a child) or negative (such as the loss of a loved one) (Dillingh, et al., 2016).

Descriptive statistical processing of tattooed subjects with visible tattoos and about 2000 non-tattooed subjects was performed (Dillingh, et al., 2016). The survey included the working active population and the disabled. Pensioners, housewives and students were excluded from the research because of their insignificance for the labor market. The average age of the examined non-tattooed persons was 46.30

years, while the tattooed respondents were younger and their average age was 42.28 years. There were more disabled and single people among the tattooed respondents. Also, tattooed respondents have fewer children in the household, and are less likely to own their own homes. Tattooed respondents are more likely to emphasize their urban mentality and have a lower level of education. Tattooed respondents were more likely to be obese than non-tattooed respondents. Non-tattooed respondents have a better self-assessment of their health condition, they visit psychologists and psychiatrists less often. Among non-tattooed respondents, there are fewer smokers and users of sedatives, soft drugs, ecstasy and hard drugs. Tattooed respondents were more likely to feel anxious, sullen and depressed than non-tattooed respondents. Tattooed respondents were significantly more prone to all types of risks than non-tattooed ones.

A study published by the *Forschungsinstitut zur Zukunft der Arbeit* in Bonn proves that the tattooed population is still, in a wide range of demographic characteristics, significantly different from the non-tattooed population. Regression analyses showed that there is a particularly strong correlation in self-assessment of health status, where tattooed individuals rated their health status significantly worse in comparison to non-tattooed individuals. Having a tattoo is still correlated with a lower level of education. No evidence was found of the (negative) impact of visible tattoos on the income. Research has found that people with a tattoo are less likely to live with a partner and use drugs and opiates more often.

*The Harris Poll* (2016) study also addressed the social perception of people with tattoos. 40% of respondents felt that people with tattoos were more rebellious than people without tattoos. On the other hand, 36% of respondents thought that people with tattoos were less attractive than people without them, 33% of respondents thought that people with tattoos were less sexy, and a third believed that tattooed people were less respected than non-tattooed people. 23% of respondents consider people with tattoos to be less intelligent and less healthy (22%) and less spiritual (20%).

Different aspects of physical appearance such as height or beauty can significantly affect employability (Watkins, 2000). A particular example of emphasizing identity is body decoration with tattoos (Akerlof & Kranton, 2000), which could have a significant impact on an individual's employability. The subject of this research was also the objective and subjective visibility of tattoos. The visibility of tattoos is important, for example, during a job interview. Only a visible tattoo can be relevant to a potential employer. The most visible tattoos are on the face, head, neck or arms. These tattoos are classified as objectively visible in this study.

Rahul (2018: 23-24) in his paper entitled *Perceptions of visible tattoos and piercings in the service industry* explored the employment policy towards tattoos in various multinational service companies. His research showed that airlines and the police are the most rigorous employers when it comes to visible

tattoos. There is obvious discrimination of candidates with visible tattoos. The possibility of latent discrimination of tattooed candidates by employers who do not deal with tattoos in the employment criteria could not be excluded. There is a possibility that candidates with visible tattoos will be eliminated at the job interview with a completely different explanation (Watkins, 2000).

Timming, et al. (2015) assessed the impact of body modifications on employment opportunities in their study. The research was conducted through an experiment in which they selected four male and four female individuals, i.e. eight individuals who served as a "control" group. Tattoos and piercings were added to each of these faces using *Photoshop*. The tattoos were strategically placed at the bottom of the neck so that they are noticeable but not obvious.



*Figure 3. Example of an image from an experiment with an original photograph, a photograph with an added piercing, and a photograph with an added star tattoo (Timming, et al., 2015)*

The experiment examined 120 people who had the role of employment managers. Respondents were randomly shown pictures of 8 selected faces in three variants (no body modification, with a tattoo and with a piercing). Respondents had to decide using grades 1-7, which person they would rather hire (1 = very unlikely to 7 = very likely). Respondents were introduced to the same persons twice. In the first block of the survey, they were asked: "How likely is it that the person in question would be employed as a cashier, a teacher or a waiter?". In the second block of the survey, respondents were asked, "How likely is it that the person in question would be employed as a cook, a factory worker, or a night watchman?"

Research results have shown that tattoos and piercings have a significant impact on employability. The authors of the study proved those body modifications significantly reduce the chances of employment. This is especially emphasized in jobs related to working with clients such as the jobs of a cashier, a waiter or a teacher. Research has proven that body modifications carry a stigma that causes prejudice among potential employers.

In the early 20th century, doctors and psychiatrists associated tattoos with character deficits. In 1934, psychiatrist Parry published a scientific book entitled "*Tattooing among Prostitutes and Perverts*". The title alone speaks enough about the official psychiatry's attitude about tattoos at that time. Psychiatrists (Lander & Kohn, 1943) present that there is a strong correlation between tattoos and psychopathology in their research. Scientific research conducted in the 1950s and 1960s has largely presented evidence that having multiple tattoos is associated with personality disorders. Scientist Gittleson et al. (1969) conducted research on 720 general and psychiatric patients. 111 of them were tattooed and 609 were not. Upon completion of the study, they reported that an increased incidence of personality disorders was observed in tattooed patients. Personality disorder was reported in 25% of tattooed patients and only in 8% of non-tattooed patients (Gittleson, et al., 1969). Such trends in the research were recorded until the 1990s. The prestigious scientific journal *Psychiatry Journal* published a series of articles that presented the concept that tattooing and other body modifications are manifestations of borderline personality disorder (Inch & Huws, 1993). It is very difficult to retrospectively assess the extent to which the social stigma of tattoos and other body modifications influenced the objectivity of scientific research at the time.

A significant turn in scientific research regarding tattoos is brought about by scientists Rooks, Roberts and Scheltema (2000). The purpose of their research was to examine the relationship between tattoos and the reason for coming to the hospital emergency department. Reasons for the arrival of patients were grouped into three groups: injury, illness or psychiatric problems/addiction. All patients were interviewed about attitudes and personal experience with tattoos. The demographic characteristics of tattooed respondents were also assessed in relation to non-tattooed ones. In two 24-hour periods, 294 patients and 289 emergency service employees were examined.

In the 16-35 age group, 35% of patients and 19% of staff had tattoos. In the 36–50 age group, 28% of patients and 11% of staff had tattoos, and the 51–65 age group had a similar percentage: 6% of patients and 5% of staff had tattoos. Age was a significant predictor of attitudes about tattoos. Younger people had a more positive attitude about tattoos. Significantly more smokers (31%) than non-smokers (13%) were tattooed. Tattooed people had a lower level of education. Gender was not significantly associated with tattoo ownership or the number of tattoos a person had. No connection was found between the tattooing and the reason for coming to the emergency department. Thus, no correlation was found between tattoos and mental illness.

Likewise, the results of a study conducted by Giles-Gorniak, et al. (2016) showed that the mental health of the respondents was not correlated with modifications on the body.

#### 4. CONCLUSION

Results for the first research question regarding the motives for body modification with tattoos, from Rubin (1988), Wohlrab et. al. (2007) and *The Harris Poll Agency* (2016) has come to the show that the primary motive is using tattoos as a form of emphasizing or communicating to others what one, as an individual, values. Even though those motives are largely personal, they have some similarities as wanting to enhance physical appearance, show unique identity traits, religious affiliation, spiritual values etc. From the available research, it can be concluded that the largest number of tattooed people find tattoos attractive and that they emphasize their sex appeal. This implies that the primary motives for tattooing are fashion, beauty and emphasizing sexuality.

Second and third research question were analyzed through research by Akerlof & Kranton, (2000), Rahul (2018: 23-24), Dillingh, et al., (2016) and Timming, et al. (2015) which led to the conclusions about the difference employment chances for tattooed and people without tattoos, and consequently related differences in lifestyle. It is concluded that people with visible tattoos that cannot be covered with clothing have a different lifestyle than people without such tattoos. Research has shown that the tattooed population, in a wide range of demographic characteristics, is still significantly different from the non-tattooed population. Regression analyses indicate that there is a particularly strong correlation in self-assessment of health status, where tattooed individuals rated their health status significantly worse than non-tattooed. No evidence was found of the (negative) impact of visible tattoos on income. Research has found that people with a tattoo are less likely to live with a partner and use drugs and opiates more often. Tattooed people with visible tattoos and non-tattooed people do not have the same opportunities in the job market. It is clear that airlines and the police are the most rigorous employers when it comes to visible tattoos. There is obvious discrimination of candidates with visible tattoos. Tattooed people are significantly less likely to get a job related to working with clients such as a cashier, a waiter or a teacher. Research has shown that body modifications to perform these jobs carry a stigma that causes prejudice among potential employers. The possibility of latent discrimination of tattooed candidates among employers who do not deal with tattoos in the employment criteria is not excluded. There is a possibility that candidates with visible tattoos will be eliminated at the job interview, with a completely different explanation. Research shows that tattoos and piercings have a significant impact on employability and that people with tattoos are most often perceived as rebellious.

Last research question examined the link between mental health and tattoos. It has long been suggested through scientific research that a correlation between mental health and tattoos exist. However, the rise in the tattooing as a trend has shown that the said theory is due for a revision. Recent research, for instance Giles-Gorniak, et al. (2016) has shown that tattooing is not directly related to mental illness, although scientific research conducted in the 1950s and 1960s offers evidence that having more tattoos

is associated with personality disorders and mental illness. Such trends in the research were recorded until the 1990s. After that period, research proves that mental health of the respondents is not correlated with body modifications.

Tattooed skin is a medium through which an individual conveys his experiences, attitudes and his view of self and thus communicates with his environment. Tattoos have existed for thousands of years, they have gone from general acceptance to religiously and socially motivated stigma, and with the popularization of tattooing, they have begun to return to the sphere of socially acceptable expression of the identity and interests of the individual. The needs of individuals to stand out in society, to express their identity, spirituality or affiliation are becoming more frequent and pronounced, especially among the younger population. The reasons for this can be related to the fact that today's media content has a very pronounced visual element of the message, and this is what tattoos really are, a visual messages, so the increase in the popularity of tattoos is not unexpected. With that in mind, rise of the tattoos as a communication medium has opened new opportunities for research especially because the change in society perception of tattoos, development of different tattoo styles and general accessibility and rise in the hygienic standards of tattoo parlors has resulted in more and more people deciding to have a tattoo. Tattooing is a very interesting communication phenomenon that provides a lot of room for further research and discussion.

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## COLLABORATIVE LEGISLATION: WITH OR WITHOUT CITIZENS? A TECHNOLOGICAL AND ENTREPRENEURIAL APPROACH

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### ABSTRACT

**Purpose:** The research is scrutinizing how transparency and public engagement are impacting the success odds of a collaborative legislation initiative. It is generally accepted that engagement and transparency are key ingredients when aiming to meet citizens' needs while also reducing the gap between a community and how its life is shaped through state mechanisms. However, participatory methodologies are still under experimentation and little can be said based on more than individual case studies.

**Design/methodology/approach:** The present research analyses two strings of collaborative legislation initiatives, based on CONSUL and, respectively, DECIDIM methodologies, issued before 2019, the results highlight a more complex web of relations between factors which drive the success of participatory legislation.

**Findings:** According to the results, nor public engagement or the degree of transparency were found to significantly predict the success of a collaborative law document, when success is defined as the chances of such a collaboratively produced document to get processed and adopted by a local government. While such results should be cautionary interpreted, they still trigger a more nuanced discussion, as the success of a collaborative legislation initiative seems to be related with processes which mirror the institutional *modus operandi*, by bringing specialists at work, and not by harvesting the collective knowledge within a community.

**Originality/value:** The authors examine collaborative legislation processes from the viewpoint of governmental transparency and citizens' engagement. The study permits an enhanced understanding of collaborative legislation initiatives and how they function as well as their linking variables to public involvement and participation.

*Keywords:* transparency, citizen law making; entrepreneurial initiative; public participation; CONSUL methodology, DECIDIM.

## INTRODUCTION

### **Literature review: transparency and deliberation in public decision making**

Transparency and its main objective public participation has increasingly becoming an international issue for more and more countries. Being described as a worldwide phenomenon, transparency is both an old and a new concept. If publishing public information on public institutions' websites is novelty seeking, the key idea that others behaviour is influenced when they are watched, has been activated long time ago. As Lotte Feinberg suitably recalled: "for democracy to work, citizens must have access to information about what their government is doing and how decisions have been reached" (Feinberg, 1997).

The aim of this study is to gain a clearer understanding on how transparency and public engagement are impacting the success odds of a collaborative legislation initiative. A transparent society, as "one in which there was no space for the sort of social darkness in which injustice or unhappiness would breed" was part of French revolutionaries' ideas (Hood, 2006). English philosopher, Jeremy Bentham regarded transparency as the key to the prevention of abuses of power, defining secrecy as an "instrument of conspiracy which ought never to be the system of a regular government" (Meijer, 2014). Decades later, sociologist Amitai Etzioni (2010, 389) affirmed that "transparency is often even regarded as a self-evident good in society".

Nowadays new technologies facilitate transparency (Margetts, 2006) even in authoritarian states such as China where "transparency is considered to be crucial in forging a connection between citizens and government" (Tan, 2012). In this type of government, the ability of citizens and civil society to hold the state to account (Lorentzen *et al.*, 2010) is often directly proportional to the autonomy of civil society or in such case the lack of it. In 2009, when president Obama issued the Open Government Directive, many US agencies had to plan how they will adopt a culture of transparency in the way they operate (McDermott, 2010). This framework for open government brought the promise of developing more trustworthy and transparent institutions by using innovation and new technologies. But the question is to which extent citizens' engagement is assured when they have the opportunity to monitor and influence government processes through access to decision-making arenas and public information (Meijer, 2013). In a very simple, but effective scheme (Meijer *et. al.*, 2012) participation is seen as open access to decision-making arenas and transparency as open access to government information mentioning therefore publicity as the essential link between transparency and participation. A collaborative process has the ability to transform learning from being not just an individual experience, but a very suitable occasion to activate citizens' minds in a collective effort (Innes and Booher, 2000). Increasing transparency and public participation based on collaborative decision making

methodologies may be a way of “strengthening people’s capacity to act upon the available information” (Lindstedt and Naurin, 2010).

## **HOW CONSUL AND DECIDIM WORK IN ORDER TO ENABLE PUBLIC PARTICIPATION AND COLLABORATIVE LEGISLATION**

As stated in CONSUL Use Guide version 0.16 (n.d), CONSUL is a software that was developed by Madrid City Council to facilitate citizen participation. Its main scope was to enable a direct system of communication with the city administration that could allow citizens to make proposals for action to be supported by other users, express their decision on particularly significant issues of the institutional action, participate in the process of developing regulations or decide on the destination of part of the institutional budget. Adaptable to any specific need, it has been designed in a totally configurable way so that the different processes can be activated or deactivated, and configured in different ways. One of the participation processes that can be carried out in CONSUL, besides Citizen Proposals, Debates, Voting or Participatory budgets is Collaborative Legislation. This component allows citizens to participate actively in the drafting of legislation and city action plans. In the section where are managed the processes of collaborative legislation, in CONSUL Project Administration Guide are explained the three different phases used: debate, proposals and drafting. In the debate phase the local governments (LG) can open several questions expecting open answers from the users who also can rate other's users answers. In what regards the proposals phase, it allows the users to write proposals on the issue and also support other users proposals. Last, but not least the drafting phase which allows the text's publishing. In this case, users can select any part of the text, make comments to it, and rate other comments. When clicking "Create new process" one can be defined which phases will be active (click in the "enabled" checkbox of each phase), the start and end dates of each phase, the information that will be shown in the web page of the process such as title, summary for the list of processes, basic description and additional information. This kind of tool makes it possible to “design more complex participation processes with different phases of participation that are defined specifically for each process. These phases may include open debates, selection of proposals, proposal and prioritization of measures, comments on texts, etc.” (CONSUL User Guide, n.d)

DECIDIM (General description and introduction to how DECIDIM works, n.d.), the other methodology which shaped collaborative legislation processes, is a digital platform for citizen participation aimed to “reprogramme” democracy. It can be used by a public or private organisations like city councils, associations, universities or NGOs. Its main objective was to configure spaces for participation allowing participants to make proposals and decisions using multiple available components such as face-to-face meetings, surveys, proposals, voting, follow-up of results, comments etc. The participatory components

which enable participation on DECIDIM are: *comments, proposals, amendments, votes, results, debates, surveys, sortitions, pages, blogs, newsletters and meetings*. Other components that build on top of basic components are: *participatory texts, accountability and conferences*.

Within the present study, only processes related to collaborative legislation were scrutinized in order to highlight how their success is impacted by public engagement and the level of transparency in communicating the results of the public consultation.

## METHODOLOGY AND RESEARCH DESIGN

Several quasi-structured interviews were conducted with 17 public servants engaged in designing, coordinating or conducting participatory processes in Madrid. All interviews were held in May, 2019 and the overall conclusions reflected that collaborative legislation is a tedious process, triggering lower engagement among citizens, when compared with participatory budgeting or voting. Also, most of the respondents pointed out that citizens get distressed by the perceived efficacy of participation, understood either in terms of adopted public decisions reflecting their views, or as observable change in immediate, concrete reality. Most of the interviewed public servants reported that overall citizens' perception over participatory process improved as participants saw that public decisions accurately reflected their input. As such, the status of a collaboratively developed piece of legislation - as either unprocessed, under processing or adopted - was considered a fair indicator for the efficiency of a crowd-law initiative, along with clearly highlighting citizens' input considered to be useful for drafting a public regulation. To measure the last indicator, all public documents associated with crowd-law initiatives were scrutinized in order to spot reports which explicitly point out to citizens' ideas or commentaries which were considered significant for drafting a public project.

By indexing all crowd-law initiatives launched in Madrid and Barcelona before 2019, a set of 80 cases was computed. 61 cases were indexed for CONSUL method and 19 for DECIDIM.

The variable indicating the success of the initiative was established as the status of the public document collaboratively developed. The categorical variable "**Status**" was computed with three levels, as follows. Level 1=0 or "unprocessed" was ascribed if the government board didn't issue any positive or negative report on the document compiled after participation. Level 2=1 or "under processing" was defined for cases when the government board issued at least one report for the document compiled after participation. At last, level 3=2 or "adopted", indicating complete success, was defined for situations when the document was approved by the City Council Plenary.

To measure the clarity of the citizens' input within the final document, the "**Report**" variable was computed, with two levels. Level 1 = 0 was defined if no public document specifically highlights which ideas or comments were considered valuable for drafting the project. Level 2=1 was computed if such

document was issued. Additionally, for further exploration, other variables were computed, as follows. **Public Engagement** was measured and defined as the number of citizens' public comments or proposals, for each case of collaborative legislation initiative. The number of comments or proposals was computed, and not the number of persons who took part in a process, because it better reflects the amount of citizens' contribution to a public project. All cases were classified according to the methodology used, be it CONSUL based or DECIDIM based, respectively, and the variable "**Methodology**" was defined as such, with two levels, accordingly. To discriminate between possible different effects of the participatory type of engagement, the following variables were created. "**Ideas Contribution**" accounted for instances when citizens were invited to contribute with comments or proposals. "**Collaborative Editing**" was computed to register situations when citizens were invited to directly draft the text for a public decision. "**Direct Meeting**" accounted for cases when a public document was developed through group meetings and citizens were invited to take part. All three variables were defined with two levels, with level 1 = 0, if such exercise wasn't run, and level 2 = 1, if the exercise took place.

An exploratory analysis was conducted at first, to check for differences between the two methodologies and possible relations between variables. A Mann-Whitney Test and Spearman Correlations were applied. Then, factors which could influence the success of the collaborative legislation initiative were explored, by conducting logistic multinomial regressions. Several hypothesis were investigated.

First, we checked if the level of engagement has any effect on the success of an initiative. High levels of public engagement is supposed to put pressure on authorities, so that the collaborative output could be expected to be more readily processed and approved, compared with situations of low engagement. However, high levels of engagement could also give birth to high volume of data that authorities could find it difficult to process. Secondly, it was tested the assumption that highlighted citizens' input is actually impacting the success of an initiative. Clarity over citizens' input is associated both with citizens' perception on the trustworthy nature of a process, and with institutional clarity over the collective knowledge which was gathered through a participatory process. Institutions often complain that they don't have capacity to interpret and use scattered data provided by citizens along brainstorming exercises. Highlighting ideas extracted from such exercises is supposed to help both institutions and citizens in tracing the impact of participation. It is questionable if these "technologies of connection" (Coleman and Gotze, 2001) that facilitate communication, feedback or exchange of information also can conduct to building interpersonal relationships.

Finally, it was sought to bring clarity over the type of participation which triggers the best chances for success in collaborative legislation endeavors. Additionally, the relation between Engagement and Reporting over participation results was investigated.

## RESULTS AND DISCUSSION

Within CONSUL methodology sample, consisting in 61 entries, there were 15 cases of unprocessed documents, 3 cases when documents moved under processing and 43 cases of adopted documents. Only within 29 situations an official report was published to explicitly mention which citizens' ideas or commentaries were considered useful. Ideas contribution exercise was ran 48 times, while co-editing exercise was conducted in 16 instances. In three instances, both exercises were conducted. Within DECIDIM methodology sample, consisting in 19 entries, there were 0 unprocessed documents, 14 cases of documents being currently under processing, and 5 adopted documents. Only in 7 instances, a report, to explicitly mention which citizens' ideas were considered useful for the final document, was filled. Ideas contribution exercise was ran 17 times, while direct meetings were conducted 18 times.

The Mann-Whitney Test showed that the difference between CONSUL and DECIDIM method in terms of odds of success was significant, with  $p < .05$ ,  $z = -1.948$ , and  $U = 428.5$ . The effect of the method used was  $r = .217$ , which is a small to medium effect. That would mean that within CONSUL methodology group appears the greatest number of high scores on success. The two methodologies were also found to be significantly different in triggering engagement, with  $p < .05$  and  $U = 401.00$ . As  $z = -2.01$ , the effect of the used method over engagement is  $r = -.225$ , which, again, is a small to medium effect, with CONSUL methodology tending to significantly trigger more engagement than DECIDIUM. There was no significant difference between the two methods in terms of reporting over the participative exercise ( $p = .416$ ,  $z = .813$ ,  $U = 517.5$ ). General relations between variables were tested by running a Spearman test both for the overall data, and for each methodology, respectively. Significant relations between the success of a collaborative legislation initiative and the other variables are reported in Table 1, as follows.

Table 1: Significant Spearman Correlations between study variables

|                       | Methodology | Engagement | Reporting | Status<br>(success) | Ideas<br>Contribution | Co-<br>Editing | Direct<br>Meetings |
|-----------------------|-------------|------------|-----------|---------------------|-----------------------|----------------|--------------------|
| Methodology           | 1           |            |           |                     |                       |                |                    |
| Engagement            | -.227*      | 1          |           |                     |                       |                |                    |
| Reporting             | -           | -          | 1         |                     |                       |                |                    |
| Status<br>(Success)   | -.219       | -          | -         | 1                   |                       |                |                    |
| Ideas<br>Contribution | -           | .405**     | -         | -.328**             | 1                     |                |                    |
| Co-Editing            | -.279*      | -          | -         | .345**              | -.801**               | 1              |                    |
| Direct<br>Meetings    | .965**      | -.245*     | -         | -                   | -                     | -.269          | 1                  |

Ns = not significant ( $p > .05$ ), \* $p < .05$ , \*\* $p < .01$

The relations between used methodology and the type of exercise is obvious, since only CONSUL methodology is using co-editing, and only DECIDIM methodology specifically reports on direct meetings for drafting documents, while both methodologies include ideas contribution exercises.

CONSUL methodology is associated with higher engagement scores and a possible bigger rate of success – although the relation is insignificant, its value is close to significance threshold, with  $r=-.219$ , and  $p=.051$ . Obviously, ideas contribution exercise is connected with higher levels of engagement, while direct meeting exercise is associated with a lower engagement. What influences the final adoption may be related not only to citizen demand, but also to an administrative or political will (Seongkyung *et al.*, 2020). Taking into consideration that the concept of engagement has been explored in different ways (Rosado-Pinto and Loureiro, 2020) this may happen when collaborative legislation initiatives have not benefited from much public recognition. Also, there is a negative significant relation between ideas contribution and co-editing, indicating that most of the times when this type of exercise is conducted, the co-editing exercise is not run. More clarity over the overall relations is brought by investigating them within samples grouped by methodology. The significant relations are reported for CONSUL methodology in Table 2, while those for DECIDIM methodology are reported in Table 3, as follows.

Table 2: Significant Spearman Correlations within CONSUL methodology group

| Table 1.  | Engagement | Reporting | Status (success) | Ideas Contribution | Table 2. Co-Editing |            |
|-----------|------------|-----------|------------------|--------------------|---------------------|------------|
| Table 3.  | 1          |           |                  |                    | Table 4.            |            |
| Table 5.  | -          | 1         |                  |                    | Table 6.            |            |
| Table 7.  | -          | -         | 1                |                    | Table 8.            |            |
| Table 9.  | .427**     | -         | -.334**          | 1                  | Table 10.           |            |
| Table 11. | Co-Editing | -.285*    | -                | .321*              | -.873**             | Table 12.1 |

Ns = not significant ( $p > .05$ ), \* $p < .05$ , \*\*  $p < .01$

The Spearman test confirms the obvious observation that the level of engagement gets higher when ideas are asked and lower during co-editing exercise. The negative relation between ideas contribution and co-editing signifies that most of the times when one exercise is run, the other is not.

However, interestingly, there seems to be a negative relation between the score of success and ideas contribution exercise, and a positive relation between the success and co-editing exercise. That would suggest that when people are asked to contribute with ideas, the scores for success (moving a project under processing or having it adopted) go down. The opposite relation is found for conducting a co-editing exercise, when scores for success go up. No significant relation was found, between

Engagement and success. Also, no significant relation was found between reporting and any other variable, when CONSUL methodology is used.

Table 3: Significant Spearman Correlations within DECIDIM methodology group

|                       | Engagement | Reporting | Status<br>(success) | Ideas<br>Contribution | Direct<br>Meetings |
|-----------------------|------------|-----------|---------------------|-----------------------|--------------------|
| Engagement            | 1          |           |                     |                       |                    |
| Reporting             | -          | 1         |                     |                       |                    |
| Status<br>(Success)   | -.535*     | -         | 1                   |                       |                    |
| Ideas<br>Contribution | .533*      | -         | -                   | 1                     |                    |
| Direct<br>Meetings    | -          | -         | -                   | -                     | 1                  |

Ns = not significant ( $p > .05$ ), \* $p < .05$ , \*\*  $p < .01$

For DECIDIM methodology, the only significant relations were found for Engagement and Ideas Contribution, which is obviously, positive, and for Engagement and Status or success, which is negative. The last relation indicates that as the scores for engagement get higher, the ones for success get lower. Similarly, as in the case of CONSUL methodology, no relations between reporting and the other variables were found.

To further investigate if the method, the level of engagement, the reporting practice, the amount of reported citizen feedback or the type of participation have any effect on the success of the initiative, multinomial logistic regressions were run. Only the method used and the amount of highlighted citizens' ideas, considered to be useful for drafting the body of a regulation, were found to be significant predictors for odds of having a project rather under processing or adopted, than unprocessed.

With these two predictors, the model was found significantly (with  $p=.000$ ) better than no model, which would have meant to simply take into consideration the means values. The decrease in unexplained variance, as showed by Chi-square tests, from the baseline model (146.948) to the final model (88.191) was also significant. The model was found to be a good fit for data, as predicted values were not significantly different from the observed values, as indicated by deviance statistics ( $p=.99$ ), and Pearson test ( $p=.99$ ). The Cox and Snell value was .520, indicating a medium to large effect. The likelihood of a project to be rather under processing than unprocessed increased when a co-editing exercise was run ( $b=-18.76$ , Wald  $\chi^2(1)=170.69$ ,  $p=.00$ ) and when CONSUL methodology was used ( $b=-22.33$ , Wald  $\chi^2(1)=277.9$ ,  $p=.00$ ). However, the results are obviously skewed by the difference between the size of the samples.

A better understanding could thus be gained by looking at the data as grouped by used methodology. When running logistic multinomial regressions within each group, a slightly different pattern of relations is highlighted. For CONSUL methodology, the odds of having a project rather under

processing, than unprocessed were computed at first and the co-editing exercise remained a significant predictor ( $b=-19.73$ , Wald  $\chi^2(1)=164.44$ ,  $p=.00$ ), indicating that there are better chances of having a project under processing, than unprocessed when a co-editing exercise was run. When computing the odds of having a project rather adopted than under processing, the effect of co-editing became insignificant ( $b=.81.73$ , Wald  $\chi^2(1)=.27$ ,  $p=.59$ ). The decrease in the amount of highlighted citizens' ideas was, instead, found to predict increased likelihood for this situation ( $b=-.11$ , Wald  $\chi^2(1)=5.79$ ,  $p=.01$ ).

A narrow look into of data shows that within the sample of projects which passed through community editing exercise, there is a cohort of cases for which no report was compiled to highlight citizens' ideas considered to be significant for the drafted regulation, and within this group we have the greatest chances to find a project rather adopted, than under processing. Also, in most of the cases, the ideas contribution and the co-editing exercises were not both run. For co-editing exercises there are no reports with highlighted citizens' input. Also, the process is generally triggering less engagement within the general population, than the exercise calling for ideas contribution. When a project is passed through co-editing process, the local government is generally asking a group of experts to work with public servants on a regulation, then the documented is uploaded and general population is allowed to directly comment on it. However, most of the times, the commentators are the authors themselves and no revision history is available to follow on what public comments were incorporated into a new version of the document. Bigger chances to find a project rather under processing, than unprocessed, within the sample of projects which ran through co-editing process may suggest that there are better success odds for projects which triggered less engagement and were not passed through a reviewing system aimed to highlight citizens' input. As the case may be, the lack of specific reporting may be explained by the fact that the text itself is a product of citizens' work. In the case of DECIDIM methodology, no project was unprocessed, so the odds were computed for the likelihood of having a project rather adopted than under processing. The engagement was found as the only predictor improving the basic model, but it was insignificant ( $b=-.09$ , Wald  $\chi^2(1)=2.06$ ,  $p=.15$ ). For instance public authorities may take into consideration only solutions or recommendations from collaborative legislation initiatives that are sustainable and already gained prominence withing the local communities (Desouza and Bhagwatwar, 2014).

## IMPLICATIONS

The limited results should be interpreted with caution, as they may be assigned to the relative small sample of entries, the uneven size of the cohorts associated with the two methodologies, and the incidental distribution of success scores within DECIDIM cohort, where no case of unprocessed

document was found. However, the present research is more revealing in terms of relations which were not found, than through what it highlights.

A somewhat disconcerting observation is that engagement and high engaging participatory processes weren't found to increase the success odds for a collaborative regulation, and neither did specific reporting on citizens' input. Actually, as CONSUL and DECIDIM methodologies are defined, there are better success odds for those projects which although are collaboratively drafted, the process mirrors the standard institutional procedure. The exercise of co-editing does not differ essentially from drafting a project during several direct meetings between specialists. Although the general content is submitted for comments to the general population, most of the times, comments come from the authors themselves. So, both methodologies imply engaging external experts who work much in the same way. There is not obvious difference between the manner of working within groups of external specialists and working within groups of internal, governmental specialists. The most successful process in collaborative legislation thus mirrors the institutional design for getting a regulation done.

Even more disconcerting, the lack of significant relations within the sample is indicative for other factors which may have a greater influence on the success outcome. Having the best chances to find an approved document, rather than one which is still under processing, within the cohort of cases which triggered low engagement and were not processed to specifically report on highlighted citizens' input, could suggest that internal, political will could be playing a greater impact on whether a regulation is passed or not, even in those cases when collaborative processes are enabled. Other possible factors which could influence the odds of success are, of course, the intrinsic complexity and the social impact of the drafted regulation. As complexity and social impact raise, it should be expected for longer periods of time to pass until approving. Future investigations should focus on measuring and controlling for complexity and estimated social impact of the regulations subjected to participation processes.

## CONCLUSIONS

As sequential conclusions, it should be remarked that for the time being, collaborative legislation processes may rather serve more as a tool to build public trust in institutions, than an operative alternative way of taking public decisions.

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## RELATIONSHIP BETWEEN EWOM IN SOCIAL MEDIA AND CUSTOMERS' PURCHASE INTENTIONS IN EGYPT AND LITHUANIA

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### ABSTRACT

**Purpose** - The present study is an initial attempt to assess and compare relationship of eWOM information in social media and purchase intentions of customers in two culturally different countries: Egypt as a country of collectivistic culture and Lithuania as a country of individualistic culture.

**Design/Methodology/Approach** - A quantitative method was used for the purpose of this study, and a sum of 500 fulfilled questionnaires were obtained; software IBM SPSS was applied for the data statistical analysis and 12 hypotheses' testing.

**Findings** - Despite the fact that Egypt is a country of collectivistic culture and Lithuania is a country of individualistic culture the research hypotheses' testing results reveal that the higher is eWOM information quality, credibility, usefulness, and adoption in social media the higher are purchase intentions of customers in both countries. Nevertheless, in Egyptian respondents' group the positive relationship between eWOM information credibility and purchase intention is the strongest (more than information quality, usefulness, adoption), however, in Lithuanian respondent's group positive relationship between eWOM information quality and purchase intention is the strongest (more than information adoption, usefulness, credibility).

**Originality/value** - Even though the influence of eWOM information is widely researched and discussed in the scientific literature, there is still a lack of researches identifying differences of online customer behavior in culturally different countries. The aim of the present research was to analyze the link between eWOM information credibility, quality, usefulness, and adoption as well as their relationship with customer behavior and purchase intentions in two culturally different countries - Egypt and Lithuania.

*Keywords: eWOM, information credibility, quality, usefulness, adoption, purchase intention, Egypt, Lithuania*

### INTRODUCTION

Many previous studies consider the traditional word of mouth (WOM) to be one of a powerful tool in terms of face to face communication; however, during the last decade the use of e-commerce as well as the spread of online communication has increased significantly. As a result, companies have begun to pay attention to customer recommendations on their products, especially e-recommendations, because Internet users can express their views through web pages, social networks, online communities, blogs, or chat rooms (Helvesen *et al.*, 2018; Erkan and Evans, 2016, Kudeshia and Kumar, 2017; Orus *et al.*, 2019; Zhu *et al.*, 2018). EWOM (hereinafter - eWOM) has been increasing extensively because customers are willing to look for the opinions and experiences of peer shoppers before deciding to purchase a service or product. Many companies have started considering online customers' reviews as an essential tool to help them sell products, build customer's trust as well as manipulate online reviews in an attempt to impact customer's purchase intentions and decisions (Orus *et al.*, 2019; Yan *et al.* 2016). According to Hennig-Thurau *et al.* (2004) eWOM is any statement - positive or negative - delivered by current, former, or potential customers about a product, company, or service, which is accessible to many people through the Internet. Marketing and advertising professionals have long known influence of WOM on purchase decisions, customers' satisfaction, and repurchase intentions. According to Helversen *et al.* (2017), Orus *et al.* (2019), Zhu *et al.* (2018) information about products on online shops have much stronger relations with customers and stimulate their empathy more than information from any website designed by marketers. Litvin *et al.* (2008) define eWOM as any kind of informal communication of customers through Internet-based technology related to the past or present usage of particular products or services and their characteristics or the products' sellers. Helversen *et al.* (2017), argue that eWOM communications influence the overall grasp value of the company as they revealed that the overall know-how information exchanged online has a direct relationship and impact on customers' loyalty and intentions. According to Zhu *et al.* (2018) online recommendations impact customers' decision to purchase online products; however, not all sources of recommendations have the same effect on customers (Orus *et al.*, 2019; Zhu *et al.*, 2018). Researchers also argue that negative eWOM has a bigger impact than positive eWOM as people tend to give more weight to negative recommendations than positive ones, also suggest that negative information captures more people's attention than positive information. Park and Lee (2007) state that negative eWOM increases a state of suspicion and fear. Hennig-Thurau *et al.* (2004) also refer that eWOM significantly impact future customers.

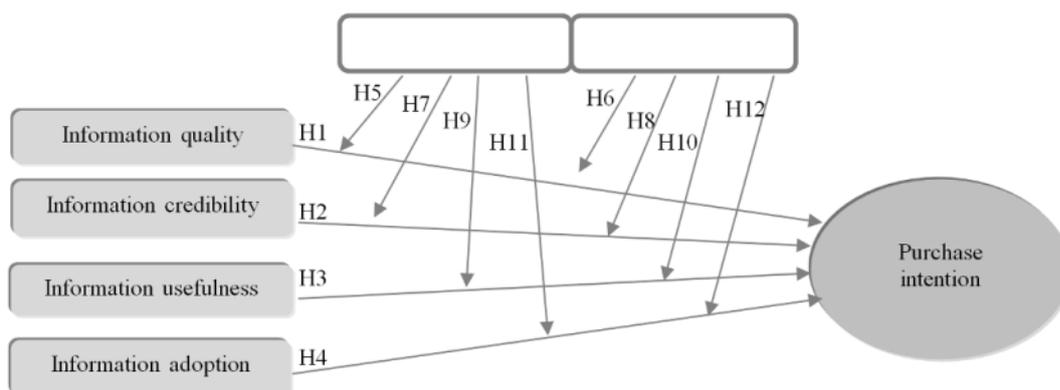
Despite the fact that influence of eWOM information in social media is widely researched and discussed in scientific literature, there is still a lack of researches identifying differences of online customer behavior in culturally different countries. Aim of the study - to assess and compare relationship of eWOM information in social media and purchase intentions of customers in two

countries - Egypt as a country of collectivistic culture and Lithuania as a country of individualistic culture. Objectives: 1) To overview scientific literature considering eWOM information credibility, quality, usefulness, and adoption and their relationship with customer behavior and purchase intentions; 2) To research the eWOM information relationship with customers' purchase intentions in Egypt and Lithuania. Based on Erkan and Evans (2016) theoretical research model the current study aims to investigate of how eWOM information credibility, quality, usefulness, and adoption influence customers' purchase intention. The quantitative research method has been applied with the empirical research instrument - a survey questionnaire. Depending on the number of respondents - similar researches samples and using a random sampling method, 500 anonymously filled in questionnaires have been collected in two culturally different countries - Egypt and Lithuania. Software IBM SPSS was applied for the data statistical analysis and 12 hypotheses' testing. The findings can help e-retailers to better identify similarities and differences, also exploit benefits of customer recommendations in culturally different countries.

## **THEORETICAL BACKGROUND**

The Internet provides a lot of information to its users; however, the information not always can be trusted. Scholars define trust as behavioral intentions that result from a general belief in an online retailer, a combination of trustworthiness, integrity, ability, and benevolence of online retailers. Although trust in online reviews has often been an important focus in the concept of eWOM, Chang *et al.* (2015) state that online reviews that appear on a shopping site of a particular brand are less trusted because of obvious intention of the seller to present his products as the best on the market. In contrast, reviews written on independent review sites or published on personal blogs are considered as more trusted than the information on the brands' websites. According to Negash *et al.* (2003) not only trust but also information quality should be considered. Over years many different characteristics have been viewed by researchers as important determinants of information quality, such as accuracy, precision, currency, output timeliness, reliability, completeness, conciseness, format, relevance, understandability, report usefulness, sufficiency, freedom from bias, comparability, and etc. (Helvesen *et al.*, 2018; Orus *et al.*, 2019; Zhu *et al.*, 2018). Park *et al.* (2007) also revealed that the very first reviews on the list have a bigger positive impact on consumer's purchasing intentions than the last reviews. Sussman and Siegal (2003) state that information quality influences a consumer's behavioral intentions, Negash *et al.* (2003) argue that both quantity and quality of the information are considered as important for the customers and help the customer in the online shopping process. Some researchers also consider adoption and the usefulness of the information as the main predictors about consumers and their purchasing intentions (Orus *et al.*, 2019; Park *et al.*, 2007; Sussman and

Siegal, 2003). Researchers believe that people tend to adopt the information when they find it useful; therefore Sussman and Siegal (2003) state that usefulness is one of the most critical elements of information acceptance. Cheung *et al.* (2008) argue that if customers believe in the information and find the information as credible, at this moment, they will adopt eWOM to help them in making their decisions. In contrast, if the customer doubts the reliability of the information, he or she will be inclined not to adopt it thus the adaptation of eWOM will decrease. Negash *et al.* (2003) defined information adoption as a degree to which people will accept the information that they are presented as useful, after assessing its validity. Cheung *et al.* (2008) also state that information adoption is an action in which customers start to interact in using this information; therefore such adoption behavior is one of the most crucial activities that impact the further decisions of the customer. Although intentions are identified as a salient indicator of real attitude to shop online, it should be considered that purchase intention will not necessarily transform into purchase action (Orus *et al.*, 2019; Zhu *et al.*, 2018). The authors suggest that purchase intention has a positive impact on real online purchasing and propose to further research relationships between the two variables in future studies. Chang *et al.* (2015) state that online recommendations have become a center of attention for marketers as they impact behavior of customers stronger than traditional advertisements. Because of skepticism towards traditional ads customers prefer information and recommendations of their friends at social media or even strangers on the Internet. Chang *et al.* (2015) conclude that the popularity of posts of friends or online customers plays a considerable role in persuading customers thus impact their behavior, i.e. purchase intentions and purchase decisions.



**Figure 1.** The theoretical research model

## THE RESEARCH MODEL AND HYPOTHESES

The study aims to analyze and compare relationship of eWOM information in social media and purchase intentions of customers in Egypt and Lithuania as well as to understand more about differences in purchase intentions in the two countries. Lithuania stands for individualistic culture

and has a European mindset in comparison with Egypt, which is a country of collectivistic nature and Arabian mindset. In this study we analyze relationship between eWOM information and customers' purchase intentions; therefore in order to establish and formulate the research hypothesis as well as prepare the research methodology a theoretical model has been designed.

The model presumes that there is one dependent variable – a purchase intention and four independent variables, such as information quality, information credibility, information usefulness, and information adoption (Erkan and Evans, 2016). Based on the independent and dependent variables, 12 hypotheses have been formulated. Information quality is one of the crucial factors which impact consumers purchase intentions. According to Chang *et al.* (2015), Park *et al.* (2007), the higher is quality of the information on website the greater is satisfaction of the customers; therefore it is consequently increasing customers' purchasing intention on such sites. Moreover, Park *et al.* (2007) state that even though a stranger has provided the information on online websites, it affects customers' purchase intention.

H0 (p=0) There is no relationship between the quality of eWOM information in social media and purchase intention.  
 H1. ( $\rho \neq 0$ )The quality of eWOM information in social media has a positive relationship with purchase intention.  
 H0 (p=0) There is no relationship between the quality of eWOM information and purchase intention in Lithuania.  
 H1.a ( $\rho \neq 0$ )The quality of eWOM information has a positive relationship with purchase intention in Lithuania.  
 H0 (p=0) There is no relationship between the quality of eWOM information and purchase intention in Egypt.  
 H1.b The quality of eWOM information has a positive relationship with purchase intention in Egypt.

Flanagin *et al.* (2014), Cheung *et al.* (2012) revealed a significant positive relationship between recommendation credibility and purchase intention in different customer segments. Also Wu and Wang (2011), Park *et al.* (2007) revealed that online recommendation from higher credibility source makes a positive impact on consumer's purchase intention.

H0 (p=0) There is no relationship between the credibility of eWOM information in social media and purchase intention.  
 H2. ( $\rho \neq 0$ ) The credibility of eWOM information in social media has a positive relationship with purchase intention.  
 H0 (p=0) There is no relationship between the credibility of eWOM information in social media and purchase intention in Lithuania.  
 H2.a ( $\rho \neq 0$ )The credibility of eWOM information in social media has a positive relationship with purchase intention in Lithuania.  
 H0 (p=0) There is no relationship between the credibility of eWOM information in social media and purchase intention in Egypt.  
 H2.b ( $\rho \neq 0$ )The credibility of eWOM information in social media has a positive impact on purchase intention in Egypt.

According to Erkan and Evans (2016), Cheung *et al.* (2008), perceived usefulness differs in people's perceptions, however, they believe that it impacts customers' purchase intentions.

H0 (p=0) There is no relationship between the usefulness of eWOM information in social media and purchase intention.  
 H3. ( $\rho \neq 0$ )The usefulness of eWOM information in social media has a positive relationship with purchase intention.  
 H0 (p=0) There is no relationship between the usefulness of eWOM information in social media and purchase

intention in Lithuania.  
 H3.a ( $q \neq 0$ ) The usefulness of eWOM information in social media has a positive relationship with purchase intention in Lithuania.  
 H0 ( $p=0$ ) There is no relationship between the usefulness of eWOM information in social media and purchase intention in Egypt.  
 H3.b ( $q \neq 0$ ) The usefulness of eWOM information in social has a positive relationship with purchase intention in Egypt.

According to Cheung *et al.* (2008), before making a purchase decision users start scanning comments and reviews on the Internet and adopt information aiming to make the right choice of products. Although the information adoption may differ from platform to platform, the purchase intentions increase among customers who adopt eWOM information (Cheung *et al.* 2008; Erkan and Evans, 2016).

H0 ( $p=0$ ) There is no relationship between the adoption of eWOM information in social media and purchase intention.  
 H4. ( $q \neq 0$ ) Adoption of eWOM information in social media has a positive relationship with purchase intention.  
 H0 ( $p=0$ ) There is no relationship between the adoption of eWOM information in social media and purchase intention in Lithuania.  
 H4.a ( $q \neq 0$ ) Adoption of eWOM information in social media has a positive relationship with purchase intention in Lithuania.  
 H0 ( $p=0$ ) There is no relationship between the adoption of eWOM information in social media and purchase intention in Egypt.  
 H4.b ( $q \neq 0$ ) Adoption of eWOM information in social media has a positive relationship with purchase intention in Egypt.

Erkan and Evans (2016) find online reviews quality as a persuasive strength affecting purchase intentions. Helversen *et al.* (2017), Zhu *et al.* (2018) agree that high-quality reviews impact on purchase intentions is stronger than low-quality reviews.

H0 ( $p=0$ ) Quality of eWOM information in social media hasn't had an impact on customers' purchase intentions in Lithuania.  
 H.5 ( $q \neq 0$ ) Quality of eWOM information in social media has a stronger impact on customers' purchase intentions in Lithuania than in Egypt.  
 H0 ( $p=0$ ) Quality of eWOM information in social media hasn't had an impact on customers' purchase intentions in Egypt.  
 H.6 ( $q \neq 0$ ) Quality of eWOM information in social media has a stronger impact on customers' purchase intentions in Egypt than in Lithuania.

According to Yan *et al.* (2016) one of the most important factors that influence the consumer in the process of convincing is information credibility. Prendergast *et al.* (2010) suggest that the more information is credible the more it makes willingness to adopt eWOM in purchase intentions and purchase decisions.

H0 ( $p=0$ ) The credibility of eWOM information in social media hasn't had an impact on consumers' purchase intentions in Lithuania.  
 H.7 ( $q \neq 0$ ) The credibility of eWOM information in social media has a stronger impact on consumers' purchase intentions in Lithuania than in Egypt.  
 H0 ( $p=0$ ) The credibility of eWOM information in social media hasn't had an impact on consumers' purchase intentions in Egypt.  
 H.8 ( $q \neq 0$ ) The credibility of eWOM information in social media has a stronger impact on consumers' purchase intentions in Egypt than in Lithuania.

According to Flanagan *et al.* (2014), customers tend to adopt eWOM if they found information as useful and helpful in the purchase decision process.

H0 ( $p=0$ ) Usefulness of eWOM information in social media hasn't had an impact on consumers' purchase

intentions in Lithuania  
 H.9 ( $q \neq 0$ ) Usefulness of eWOM information in social media has a stronger impact on consumers' purchase intentions in Lithuania than in Egypt.  
 H0 ( $p=0$ ) Usefulness of eWOM information in social media hasn't had an impact on consumers' purchase intentions in Egypt.  
 H.10 ( $q \neq 0$ ) Usefulness of eWOM information in social media has a stronger impact on consumers' purchase intentions in Egypt than in Lithuania.

Cheung *et al.* (2012) revealed that information usefulness has a significant impact on eWOM adoption.

Yan *et al.* (2016) also state that information usefulness and credibility contribute significantly to consumer's eWOM adoption.

H0 ( $p=0$ ) Adoption of eWOM information in social media hasn't had an impact on consumers' purchase intentions in Lithuania.  
 H.11 ( $q \neq 0$ ) Adoption of eWOM information in social media has a stronger impact on consumers' purchase intentions in Lithuania than in Egypt.  
 H0 ( $p=0$ ) Adoption of eWOM information in social media hasn't had an impact on consumers' purchase intentions in Egypt.  
 H.12 ( $q \neq 0$ ) Adoption of eWOM information in social media has a stronger impact on consumers' purchase intentions in Egypt than in Lithuania.

To test the hypotheses a survey questionnaire has been conducted. The non-probability sampling method (convenience technique) has been chosen for the survey data gathering. In order to calculate respondents' sample of the research previous studies with similar research aims have been compared (Table 1).

| Author, year                           | Title; sample size   |
|--|--|
| Wang et al. (2015)                     | Social interaction-based consumer decision-making model in social commerce: The role of word of mouth and observational learning; 217                        |
| San-Martín et al. (2015)               | The impact of age in the generation of satisfaction and WOM in mobile shopping; 447  |
| Bian and Moutinho (2009)               | An investigation of determinants of the counterfeit purchase consideration; 430  |
| Bailey (2005)                          | Consumer awareness and use of Product review websites; 250   |
| Helversen et al. (2018)                | Influence of consumer reviews on online purchasing decisions in older and younger adults; 154  |
| Cheung and Lee (2012)                  | An investigation of determinants of the counterfeit purchase consideration; 203  |
| Themba and Mulala (2013)               | Brand-Related eWOM and Its Effects on Purchase Decisions: An Empirical Study of University of Botswana Students; 300   |
| Torlak et al. (2014)                   | The Effect of Electronic Word of Mouth on Brand Image and Purchase Intention: An Application Concerning Cell Phone Brands for Youth Consumers in Turkey; 265 |
| Tsao et al. (2015)                     | Compliance with eWOM: The influence of hotel reviews on booking intention from the perspective of consumer conformity; 160                                   |
| Goldsmith and Horowitz (2006)          | Measuring Motivations for Online Opinion Seeking; 309  |
| Kudeshia and Kumar (2017)              | Social eWOM: does it affect the brand attitude and purchase intention of brands? 311   |
| Tabbane and Hamouda (2013)             | Impact of eWOM on the Tunisian consumer's attitude towards the products; 165   |
| Teng et al. (2014)                     | Examining the antecedents of persuasive eWOM messages in social media; 109   |
| The average number of respondents: 250 |  |

Table 1. Average sample size based on previous researchers

The questionnaire was distributed through social media (Facebook) and email and targeted respondents in two countries: Egypt and Lithuania. In total 507 complete questionnaires were received; however, 7 questionnaires were excluded from the analysis as the respondents skipped number of statements of the questionnaire. In total, 500 questionnaires were valid for the research - 250 respondents from Egypt and 250 respondents from Lithuania. It corresponds with the comparative analysis of the sample size of previous researches, which showed that the average sample size must be around 250 respondents. All scales were previously validated and adopted from previous researches (Table 2). The survey questionnaire contains two sections, i.e. the first part indicates and measures independent variables: information quality, credibility, usefulness, and adoption; the second part indicates and measures dependent variable - online purchase intention. Statistical analysis was conducted in the IBM SPSS program software.

| Scale   | Items   | Cronbach's $\alpha$ |
|---|---|---------------------|
| Information quality<br>/Park et al., 2007           | I think they have sufficient reasons supporting their opinions.<br>I think they are objective.<br>I think they are understandable.<br>I think they are clear.<br>In general, I think the quality of them is high.           | 0.846               |
| Information credibility<br>/Prendergast et al. 2010 | I think they are convincing.<br>I think they are strong.<br>I think they are credible.<br>I think they are accurate.  | 0.862               |
| Information usefulness<br>/Cheung et al., 2008      | I think they are generally useful.<br>I think they are generally informative.   | 0.846               |
| Information adoption<br>/Cheung et al. 2009         | They contribute to my knowledge of the product.<br>They make it easier for me to make a purchase decision.<br>They enhance my effectiveness in making a purchase decision.<br>They motivate me to make a purchase decision. | 0.899               |
| Purchase intention<br>/Hille et al., 2015           | I would use the Internet to purchase a product.<br>Using the Internet to purchase a product is something I would do.<br>I could see myself using the Internet to buy a product.   | 0.909               |

Table 2. *Reliability of scales and items of the questionnaire*

All constructs had Cronbach's Alpha ( $\alpha$ ) above the conventional level of 0.7 (Nunnally, 1987); therefore, have been accepted as suitable and reliable for further research (Table 2). The scales have been measured by a 7-point Likert scale ranging from "totally disagree" to "totally agree". To facilitate and obtain the most accurate results of the respondents' answers, the questionnaire was translated and back-translated into and from Lithuanian and Arabic.

## RESEARCH RESULTS

To understand the effect and relationship of each variable to the intention to purchase in terms of positive or negative aspects, we applied a correlation analysis between independent variables (i.e. information quality, credibility, usefulness, adoption) and the dependent variable - purchase intention - separately. Pearson's correlation analysis (Table 3) showed that there is a moderate positive correlation between the quality of eWOM and purchase intention in both countries Egypt and Lithuania ( $r = .598^{**}$ ,  $P < 0.001$ ). These results indicate a positive relationship of information quality with purchase intention therefore hypothesis H1 is confirmed.

|                     |                       |        |        |
|---------------------|-----------------------|--------|--------|
| Information quality | Pearson's Correlation | 1      | .598** |
|                     | Sig. (2-tailed)       |        | .000   |
|                     | N                     | 500    | 500    |
| Purchase intention  | Pearson's Correlation | .598** | 1      |
|                     | Sig. (2-tailed)       | .000   |        |
|                     | N                     | 500    | 500    |

Table 3. Correlation between information quality and purchase intention in both countries

In the Lithuanian respondents' group Pearson's analysis shows a positive correlation between information quality and purchase intention in Lithuania ( $r = .472$ ,  $P < 0.001$ ), which indicates that information quality has a positive relationship with purchase intention therefore hypothesis H1.a is confirmed. In the Egyptian respondents' group Pearson's analysis shows a moderate positive correlation between information quality and purchase intention in Egypt ( $r = 0.600^{**}$ ,  $P < 0.001$ ), which indicates that information quality has a positive relationship with purchase intention therefore hypothesis H1.b is confirmed.

Pearson's correlation analysis (Table 4) showed that there is a moderate positive correlation between the information credibility of eWOM and purchase intention in both countries Egypt and Lithuania ( $r = .575^{**}$ ,  $P < 0.001$ ). These results indicate a positive relationship of information credibility with purchase intention therefore hypothesis H2 is confirmed.

|                         |                       |        |        |
|-------------------------|-----------------------|--------|--------|
| Information credibility | Pearson's Correlation | 1      | .575** |
|                         | Sig. (2-tailed)       |        | .000   |
|                         | N                     | 500    | 500    |
| Purchase intention      | Pearson's Correlation | .575** | 1      |
|                         | Sig. (2-tailed)       | .000   |        |
|                         | N                     | 500    | 500    |

Table 4. Correlation between information credibility and purchase intention in both countries

In the Lithuanian respondents' group Pearson's analysis shows positive correlation between information credibility and purchase intention in Lithuania ( $r = .318^{**}$ ,  $P < 0.001$ ), which indicates that information credibility has a positive relationship with purchase intention therefore hypothesis H2.a is confirmed. In the Egyptian respondents' group Pearson's analysis shows a moderate positive correlation between information credibility and purchase intention in Egypt ( $r = .626^{**}$ ,  $P < 0.001$ ),

which indicates that information credibility has a positive relationship with purchase intention therefore hypothesis H2.b is confirmed.

Pearson's correlation analysis (Table 5) showed that there is a moderate positive correlation between the information usefulness of eWOM and purchasing intention in both countries Egypt and Lithuania ( $r = .488^{**}$ ,  $P < 0.001$ ). These results indicate a positive relationship of information usefulness with purchasing intention therefore hypothesis H3 is confirmed.

|                        |                       |        |        |
|------------------------|-----------------------|--------|--------|
| Information usefulness | Pearson's Correlation | 1      | .488** |
|                        | Sig. (2-tailed)       |        | .000   |
|                        | N                     | 500    | 500    |
| Purchase intention     | Pearson's Correlation | .488** | 1      |
|                        | Sig. (2-tailed)       | .000   |        |
|                        | N                     | 500    | 500    |

Table 5. *Correlation between information usefulness and purchase intention in both countries*

In the Lithuanian respondents' group Pearson's analysis shows a positive correlation between information usefulness and purchase intention in Lithuania ( $P < 0.001$ ,  $r = .344^{**}$ ), which indicates that information usefulness has a positive relationship with purchase intention therefore hypothesis H3.a is confirmed. In the Egyptian respondents' group Pearson's analysis shows a moderate positive correlation between information usefulness and purchase intention in Egypt ( $p < 0.001$ ,  $r = .508^{**}$ ), which indicates that information usefulness has a positive relationship with purchase intention therefore hypothesis H3.b is confirmed.

Pearson's correlation analysis (Table 6) showed that there is a moderate positive correlation between the information adoption of eWOM and purchasing intention in both countries Egypt and Lithuania ( $P < 0.001$ ,  $r = .468^{**}$ ). These results indicate a positive relationship of information adoption with purchase intention therefore hypothesis H4 is confirmed.

|                      |                       |        |        |
|----------------------|-----------------------|--------|--------|
| Information adoption | Pearson's Correlation | 1      | .468** |
|                      | Sig. (2-tailed)       |        | .000   |
|                      | N                     | 500    | 500    |
| Purchase intention   | Pearson's Correlation | .468** | 1      |
|                      | Sig. (2-tailed)       | .000   |        |
|                      | N                     | 500    | 500    |

Table 6. *Correlation between information adoption and purchase intention in both countries*

In the Lithuanian respondents' group Pearson's analysis shows a positive correlation between information adoption and purchase intention in Lithuania ( $r = .352^{**}$ ,  $P < 0.001$ ), which indicates that information adoption has a positive relationship with purchase intention therefore hypothesis H4.a is confirmed. In the Egyptian respondents' group Pearson's analysis shows a moderate positive correlation between information adoption and purchase intention in Egypt ( $P < 0.001$ ,  $r = .451^{**}$ ), which indicates that information adoption has a positive relationship with purchase intention therefore hypothesis H4.b is confirmed.

To test the remaining hypotheses each variable and its effect on the intention to purchase separately in Egypt and Lithuania were compared with each other. This part of the analysis aims to reveal differences between individualistic culture (Lithuania) and collectivistic culture (Egypt) in terms of each independent variable impact on purchase intention.

| Independent variable | Dependent variable | Country   | F       | R2   | T      | P-value | Standardized Beta |
|----------------------|--------------------|-----------|---------|------|--------|---------|-------------------|
|                      |                    | Egypt     | 139.609 | .360 | 11.816 | P<0.001 | .600              |
| Inf. quality         | Purchase intention | Lithuania | 71.186  | .223 | 8.437  | P<0.001 | .472              |

Table 7. Comparison of information quality impact on purchasing intention in Egypt and Lithuania

Simple linear regression analysis was used to measure differences of information quality impact between the two countries (Table 7). A significant regression equation was found in Egyptian respondents' group ( $F = (139.609)$ ,  $P < 0.001$ ) with an  $R^2 = .360$ , and coefficient beta  $b = .600$ . In contrast, the regression equation in the Lithuanian respondents' group was found ( $F = 71.186$ ,  $P < .001$ ) with an  $R^2 = .223$ , and coefficient beta  $b = .472$ . The P-value in both countries is  $P < .001$ ; however, the impact in the two countries is different: 36% of purchase intention is explained by information quality in Egypt compared to 22.3% in Lithuania; the information quality of eWOM in Egypt ( $b = .600$ ) was found as more influential on customers' purchase intention than in Lithuania ( $b = .472$ ). It supports the argument that the quality of eWOM has a stronger impact in Egypt than in Lithuania. As a result, the hypothesis H5 is rejected. On the other hand, the hypothesis H.6 is confirmed.

| Independent variable | Dependent variable | Country   | F       | R2   | T      | P-value | Standardized Beta |
|----------------------|--------------------|-----------|---------|------|--------|---------|-------------------|
|                      |                    | Egypt     | 160.481 | .392 | 12.656 | P<0.001 | .629              |
| Inf. credibility     | Purchase intention | Lithuania | 27.853  | .101 | 5.278  | P<0.001 | .318              |

Table 8. Comparison of information credibility effect on purchasing intention in Egypt and Lithuania

Simple linear regression analysis was used to measure information credibility impact differences between the respondents' groups of two countries (Table 8). The results were found as significant in both countries  $P < .001$ ; however, in Egypt, almost 40% of purchase intentions are explained by information credibility (in contrast, 10.1% in Lithuania). Also the information credibility of eWOM has a bigger impact on purchase intention Egypt ( $b = .629$ ) than in Lithuania ( $b = .318$ ) therefore hypothesis H.7 is rejected. On the other hand, hypothesis H.8 is confirmed.

| Independent variable | Dependent variable | Country   | F      | R2   | T     | P-value | Standardized Beta |
|----------------------|--------------------|-----------|--------|------|-------|---------|-------------------|
|                      |                    | Egypt     | 86.315 | .258 | 9.291 | P<0.001 | .508              |
| Inf. usefulness      | Purchase intention | Lithuania | 33.349 | .119 | 5.775 | P<0.001 | .344              |

Table 9. *Comparison of information usefulness effect on purchasing intention in Egypt and Lithuania*

Simple linear regression analysis was used to measure information usefulness impact differences in the respondents' groups of the two countries (Table 9). A significant regression equation was found in Egypt ( $F = (86.315)$ ,  $P < 0.001$ ) with an  $R^2 = .258$  and coefficient beta  $b = .508$ . In contrast, the regression equation in Lithuania was found ( $F = 33.349$ ,  $P < .001$ ) with an  $R^2 = .119$ , and coefficient beta  $b = .344$ . In both countries the results were significant ( $P < 0.05$ ). Nevertheless, there is a difference between both countries: in Egyptian respondents' group 11% of intention to purchase was impacted by information usefulness (in Lithuanian - almost 12%). Also the eWOM information usefulness is more influential on customers' purchase intention in Egypt ( $b = 508$ ) than in Lithuanian ( $b = .344$ ); therefore it lets to conclude that information usefulness impacts purchase intention more in Egypt than in Lithuania. As a result, the hypothesis H.9 is rejected. On the other hand, the hypothesis H.10 is confirmed.

| Independent variable | Dependent variable | Country   | F      | R2   | T     | P-value     | Standardized Beta |
|----------------------|--------------------|-----------|--------|------|-------|-------------|-------------------|
|                      |                    | Egypt     | 63.180 | .203 | 7.949 | $P < 0.001$ | .451              |
| Inf. adoption        | Purchase intention | Lithuania | 35.093 | .124 | 5.924 | $P < 0.001$ | .352              |

Table 10. *Comparison of information adoption effect on purchasing intention in Egypt and Lithuania*

Simple linear regression analysis was used to measure the impact of information usefulness in the two countries (Table 10). A significant regression equation was found in Egypt ( $F = (63.180)$ ,  $P < 0.001$ ) with an  $R^2 = .203$  and coefficient beta  $b = .451$ . In contrast, the regression equation in Lithuania was found ( $F = 35.093$ ,  $P < .001$ ) with an  $R^2 = .124$  and coefficient beta  $b = .352$ . In both countries the results were significant  $P < 0.05$ . The analysis revealed that 20.3 % of purchase intention is explained by the information adoption in the Egyptian respondents' group compared to 12.4% in the Lithuanian respondents' group. Moreover, the information adoption impacts Egyptian customers' purchase intention ( $b = .451$ ) more than Lithuanian ( $b = .352$ ). These results support an argument that eWOM information adoption in Egypt has more impact on consumers' purchase intentions than in Lithuania; therefore the hypothesis H.11 is rejected. On the other hand, the hypothesis H.12 is confirmed.

## MANAGERIAL IMPLICATIONS AND FURTHER RESEARCH

Many studies prove the importance of eWOM information and its relationship with purchase intentions therefore online information has become a center of attention for both researchers and marketers as customers' opinions, reviews and recommendations on social media greatly influence some groups of customers' behavior more than traditional ads. The 12 hypotheses of the study measure relationships between independent variables – eWOM information quality, credibility, usefulness, and adoption and the dependent variable - purchase intention in two culturally different

countries – Egypt and Lithuania. Although Lithuania stands for individualistic culture and has a European mindset in comparison with Egypt, which is a country of collectivistic nature and Arabian mindset, the research hypotheses' testing results reveal that the higher is information quality, credibility, usefulness, and adoption of eWOM in social media the higher are purchase intentions of customers in both countries. Nevertheless, in Egyptian respondents' group the positive relationship between eWOM information credibility and purchase intention is the strongest (more than information quality, usefulness, adoption), however, in Lithuanian respondent's group positive relationship between eWOM information quality and purchase intention is the strongest (more than information adoption, usefulness, credibility).

This study has some limitations because the two countries respondents' demographical characteristics were not included into the analysis therefore it is not possible to draw general conclusions about how eWOM information in social media influences customers' purchase intentions in different demographic groups of respondents (e.g., by age, income, education). Despite the research was carried out in Egypt and Lithuania only, the findings of the empirical study can be seen not only in the context of Egyptian and Lithuanian realities. These realities can be considered as an implication for further research as well as appreciated to the extent that they help to better understand general global trends and processes as well as to consider both similarities and differences that occur in the individualistic and collectivistic cultures. Expansion of the number of countries participating in the survey and extension of the analysis of the demographic groups of the respondents can be the object of further research. Such systematic research would allow e-retailers to better identify and exploit the benefits of customer recommendations in culturally different countries.

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# ENTREPRENEURSHIP AND PERCEIVED QUALITY OF LIFE AT URBAN LEVEL: SMART CITIES AS LARVA, BEES, BUTTERFLIES AND FLOWERED GARDENS

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## ABSTRACT

This study aims to investigate the relationship between entrepreneurship and the perceived quality of life in European smart cities. The research uses objective and subjective variables, respectively, to analyze the relationships between entrepreneurial performance and the dimensions of the quality of life, interpreted in terms of smart city's dimensions. On the basis of the quality of life survey by Eurostat, we measure the perceived quality of life for a sample of 43 cities. We conduct a cluster analysis and adopt a non-aggregative quantitative approach based on the theory of the partially ordered set in order to find evidence that smart cities must develop drivers for the quality of life in order to attract and retain entrepreneurial activities. Specifically, we highlight that the perceived quality of life sustains entrepreneurship in the long-term. We suggest the governments of smart cities to focus on creating a conducive environment for entrepreneurship, encouraging and promoting interventions for improving citizens' quality of life. The findings add to the body of knowledge in the entrepreneurship literature and provide implications for how managers and policymakers can enhance the attractiveness of the entrepreneurial environment.

*Keywords: Entrepreneurship, smart city, quality of life*

## INTRODUCTION

There has been a revival of academic interest in the role that cities play in national economies and regions (Fritsch and Storey, 2014). Recent studies have started considering cities as an environment for entrepreneurship (Szerb et al., 2013; Audresch et al., 2015). A few academic contributions address the economic and social effects of entrepreneurship (Audretsch et al., 2015) and the drivers of entrepreneurial ecosystems in European cities (Audretsch and Belitski, 2017; Ivaldi et al., 2020 b; Penco et al., 2020). Moreover, the extant literature on urban entrepreneurship focuses on the characteristics of the urban ecosystem in terms of the regional system of entrepreneurship (Szerb et al., 2013; Acs et al., 2014), while only a few contributions view the quality of life at the city level as a

driver of entrepreneurial activities. The seminal work of Pennings (1982) used aggregated indexes, but it discussed the need to employ data sources that can provide direct accounts of individual-level perceptions of local quality of life (Osorio, 2018). The quality of life is accurately expressed by the level of life satisfaction (or subjective well-being) (Florida et al., 2013). In the same vein, limited literature has focused on the perceived quality of urban life and the entrepreneurial activity at the city level (Audretsch and Belitski, 2015). In order to fill the aforementioned research gaps, this research aims to identify the existence of a relationship between entrepreneurship and the perception of urban quality of life. Specifically, we address the following research questions (RQ): RQ1: *Is the perceived urban quality of life a stimulus for entrepreneurship at European Union (EU) level?* RQ2: *Which quality of life domains (interpreted in the light of a smart city's dimensions) are more conducive to stimulating urban entrepreneurship at EU level?* Following Audretsch and Belitski (2015), for the EU cities, the perception of the quality of life is investigated using subjective variables connected to the main smart city dimensions. To the best of our knowledge, this is the first study to establish a direct relationship between the measures of the subjective quality of life and the main smart city profiles (Dameri et al. 2019).

## LITERATURE REVIEW

### *Entrepreneurship at the city level*

Based on the regional system of entrepreneurship, most of the studies consider the country- or regional level (Acs et al., 2014). Recent entrepreneurship policy trends and related academic research (Audretsch and Belitski, 2017; Penco et al., 2020) focus not only on the national and regional perspectives to but also on the local-urban perspective. Economic geography and urban economics studies have found that entrepreneurial activity (especially Schumpeterian entrepreneurship) is more concentrated and clustered than manufacturing (Adler et al., 2019). In this context, it must be noted that the most important appeal of large metropolitan areas is linked to agglomeration economies (Szerb et al., 2013; Ferraris et al., 2020). Cities will thrive and grow if they provide amenities and infrastructure attractive to their high human-capital residents (Audretsch et al., 2015). In return, entrepreneurship serves as a conduit for the spillover of creativity to urban economic development (Florida, 2002). The urban context also offers other drivers for the clustering of entrepreneurial activity and innovation at the city level (Adler et al., 2019). The creation of a positive atmosphere in terms of the quality of life attracts and retains businesses, knowledge-workers, and entrepreneurs (Musterd and Gritsai, 2012). However, urban policy managers are faced with the challenge to create a positive climate for attracting and retaining entrepreneurs that stimulate the urban wealth (Porter, 1996). Despite the relevance of the aforementioned topics, limited literature explicitly reveals any

relationship between the development of the urban-level entrepreneurship and the quality of life (Pennings, 1982). There is also a lack of attention to entrepreneurship at the city and EU levels (Ács et al., 2014).

#### *Subjective well-being and quality of life within the smart city framework*

Public policies can stimulate urban development. The most important cities are oriented to implement smart city policies to foster urban development (Camboim et al., 2019; Dameri et al., 2019; Ferrari et al., 2018; Ivaldi & Ciacci, 2020). The most important dimensions of the concept are: Economy; Governance; People; Welfare; Culture; Environment; ICT & Mobility. Different researches have specified that the main dimensions of a smart city can contribute toward entrepreneurial attractiveness (Richter et al., 2015). The smart city dimensions aimed at creating a good urban environment are usually measured by objective indicators (Ivaldi et al., 2020 b). Consistent with the theorists of well-being, the urban quality of life can also to be estimated by subjective measures (Audrescht et al., 2015). Pennings (1982) suggested to use data sources that can provide direct accounts of individual-level perceptions of local quality of life (Osorio, 2018; Ciacci et al., 2020). Analyzing the capacity to attract “creative people,” Florida et al. (2013) stated that the “happiness of cities”.

## METHODOLOGY

### *Sample*

Consistent with Penco et al. (2020) and Bruzzi et al. (2019), a sample of 28 EU capital cities was constructed. The final sample comprised 43 cities involved in smart city policies (Table 1).

Table 1: Sample and groups

| Cities   | Group name          | Number of cities | Quartile  |
|--|---------------------|------------------|---|
| London, Paris, Madrid, Barcelona, Berlin, Rome, Athens, Warsaw, Manchester, Hamburg, and Budapest  | Large cities        | 11               | Population of the metropolitan area exceeding the third quartile of the distribution          |
| Lisbon, Munich, Vienna, Stuttgart, Amsterdam, Lille, Frankfurt, Prague, Brussels, Turin, Bucharest, Stockholm, Copenhagen, Dublin, Glasgow, Sofia, Helsinki, Bordeaux, Düsseldorf, Krakow, and Dresden | Medium-sized cities | 21               | Population of the metropolitan area between the first and third quartiles of the distribution |
| Malmo, Zagreb, Cardiff, Vilnius, Karlsruhe, Riga, Bratislava, Tallinn, Luxembourg, Ljubljana, and Valletta   | Small cities        | 11               | Population of the metropolitan area within the first quartile of the distribution             |

*Source: our elaboration*

### *Selection of variables*

In order to analyze the relationship between the urban-level entrepreneurship and the perceived quality of life (measured in terms of satisfaction for each smart city dimension), we collect objective

and subjective data. Based on sub-indexes connected to the most important smart city dimensions, we develop an innovative multidimensional index (HUI—Happiness Urban Index) to better explain the different dimensions of the perceived quality of life. Table 2 below describes the structures of ENT and HUI.

Table 2: Description of variables (objective and subjective) and indexes.

| Dimension                           | Sub-dimension       | Variables   | Source  | Variable COD | Sub-indexes (COD) | Indexes (COD) |
|-------------------------------------|---------------------|---|---|--------------|-------------------|---------------|
| Entrepreneurial vitality            | N.A                 | Average monthly increase in the number of startups (normalized by the number of inhabitants) i)     | Teleport (2019)*                              | STAR         |                   |               |
| Entrepreneurial attractiveness      | N.A                 | Number of investors (normalized by the number of inhabitants)                                       | Teleport (2019)*                              | INV          | N.A.              | ENT           |
| Mentoring and Managerial Assistance | N.A                 | Accelerated startups (normalized by the number of inhabitants)                                      | Gust (2016)**<br>Seed DB (2016)**             | ACC          |                   |               |
| Entrepreneurial success             | N.A                 | History of highly successful digital companies (unicorns) (normalized by the number of inhabitants) | GP Bullhound (2016)**<br>CB Insights (2016)** | UNI          |                   |               |
| Economy                             | Labour market       | Ease in finding a job   |   | ECO 1        |                   |               |
|                                     | Financial situation | Satisfaction with the financial situation of your household   |   | ECO2         | ECO               |               |
|                                     | Taxation            | Difficulty paying bills at the end of the month (inverted value)                                    |   | ECO2         |                   |               |
| Governance                          | Efficiency          | Satisfaction with the efficiency of administrative services of your city                            |   | GOV 1        |                   |               |
|                                     | Allocation          | Satisfaction with the way your city spends its resources  |   | GOV2         | GOV               |               |
|                                     | Trust               | Satisfaction with the public administration   | Eurostat (2015)***                            | GOV3         |                   |               |
| People                              | Integration         | Satisfaction with the integration of foreigners who live in your city                               |   | PEO 1        |                   |               |
|                                     | Perception          | Satisfaction about the presence of foreigners in your city  |   | PEO2         | PEO               |               |
|                                     | Trust               | Satisfaction with the credibility of individuals  |   | PEO3         |                   | HUI           |
| Welfare                             | Health              | Satisfaction with the healthcare services offered by doctors and hospitals                          |   | WEL1         | WEL               |               |
|                                     | Safety              | Satisfaction with the safety of your neighborhood   |   | WEL2         |                   |               |

|                  |                  |  |          |         |
|------------------|------------------|--|----------|---------|
|                  | Education        | Satisfaction with education and training in your city        | WEL3     |         |
|                  | School           | Satisfaction with schools in your city                       | CUL1     |         |
| Culture          | Facilities       | Satisfaction with cultural facilities                        | CUL2     | CUL     |
|                  | Cinema           | Satisfaction with cinemas in your city                       | CUL3     |         |
|                  | Green spaces     | Satisfaction about the presence of green spaces in your city | ENV1     |         |
| Environment      | Air              | Satisfaction with the quality of air in your city            | ENV2     | ENV     |
|                  | Cleanliness      | Satisfaction with the cleanliness in your city               | ENV3     |         |
|                  | Public internet  | Satisfaction with the Internet access in your city           | ICT&MOB1 |         |
| ICT and Mobility | Private internet | Satisfaction with the Internet access at home in your city   | ICT&MOB2 | ICT/MOB |
|                  | Mobility         | Satisfaction with public transport in your city              | ICT&MOB3 |         |

*Source: our elaboration*

*From variables to sub-indexes and indexes*

The methodology employed in this study is based on a formative approach, according to which the latent factor (entrepreneurship and well-being) depends on the indicators that “explain” the factor, and not vice versa (Diamantopoulos et al. 2008). This implies that the variables are functional to the definition of the phenomenon under study (Maggino, 2017). Our analysis is based on the Poset methodology, a quantitative non-aggregative analytical approach used to compare different statistical units (Ivaldi et al., 2020 b). Poset makes it possible to establish unequivocally whether or not it is appropriate to compare the different statistical units making up a distribution.

Graphically, Poset is expressed through a tool called *Hasse* diagram. The *Hasse* diagram is composed of the following elements: the nodes, which correspond to profiles, each one identifying a statistical unit; a connector, or line, which unites the comparable elements, while it is absent if it is not possible to determine with certainty the prevalence of one statistical unit over the other.

The existence of incomparability, which is reflected in the partiality of the systems and in the impossibility of answering immediately to all the questions in a comparative perspective, is a direct consequence of the complexity and multiformity of a given phenomenon. It is necessary to bump into with these characteristics, so typical of multidimensional evaluation problems, and even take advantage of them (Fattore et al., 2011).

According to Fattore (2017), after assigning the evaluation scores to the elements of a Poset, the elements can be ordered in a linear order. In other words, we can assign a score to each element of a finite poset; the score represents the position of the elements in a “low-high” axis (Fattore et al., 2019). After having arranged all the linear extensions, we must calculate the height of each linear extensions,

defined as 1 plus the number of elements below  $x$  in the linear order; then, for each element of the poset, we compute the average height  $[0, 1]$  on its linear extensions, corresponding to the arithmetic mean of the heights of  $x$  in all linear extensions (ibidem).

In addition to the poset analysis, for each group of cities, we conduct a k-means cluster analysis (Hartigan and Wong, 1978) to perform a bivariate classification of the countries according to both ENT and HUI.

## RESULTS AND DISCUSSION

All procedures were conducted using the R software. The partial orders in socio-economics (PARSEC) package was used for the poset elaboration (Arcagni and Fattore, 2019).

### *Average height and Correlation matrix*

The application of the average height allowed us to obtain synthetic measures for the performance of different cities in different fields of analysis. We also measured the performance by the sizes of cities (large, medium, and small). Higher values identify better situations and vice-versa. This measure is an index based on the possibility to compare different cities and the structure of the profiles of the cities. Table 3 presents the value of the average height for each statistical unit, for ENT and HUI of the sampled EU cities. The top 10 cities' ENT and HUI are located in the northern range.

Table 3: ENT and HUI: General average height and performance of each city group

| Cities (43) | ENT  | Cities (43) | HU<br>I | Range         | Group  | Cities     | EN<br>T | Cities     | HU<br>I | Range         |
|-------------|------|-------------|---------|---------------|--------|------------|---------|------------|---------|---------------|
| London      | 41,6 | Munich      | 40,0    |               | Large  | Berlin     | 10,5    | London     | 10,1    |               |
| Berlin      | 41,6 | Copenhagen  | 38,7    |               | Large  | London     | 10,5    | Manchester | 9,2     |               |
| Tallinn     | 40,1 | Glasgow     | 38,4    |               | Large  | Barcelona  | 7,9     | Hamburg    | 7,5     |               |
| Amsterdam   | 38,5 | Stuttgart   | 38,4    |               | Large  | Madrid     | 7,5     | Paris      | 6,7     |               |
| Copenhagen  | 36,2 | Dusseldorf  | 38,0    |               | Large  | Manchester | 5,7     | Berlin     | 6       |               |
| Dublin      | 35,4 | Dublin      | 37,5    |               | Large  | Paris      | 5,7     | Madrid     | 6       | max 11; min 0 |
| Helsinki    | 35,3 | Frankfurt   | 37,0    |               | Large  | Athens     | 4,9     | Warsaw     | 6       |               |
| Munich      | 35,2 | Wien        | 36,0    |               | Large  | Hamburg    | 4,1     | Barcelona  | 5,5     |               |
| Stockholm   | 35,2 | Amsterdam   | 35,3    |               | Large  | Warsaw     | 4,1     | Budapest   | 4,5     |               |
| Prague      | 33,8 | Stockholm   | 35,2    |               | Large  | Budapest   | 4       | Athens     | 2,9     |               |
| Barcelona   | 33,5 | Dresden     | 34,1    |               | Large  | Rome       | 1,3     | Rome       | 1,7     |               |
| Luxembourg  | 32,1 | Helsinki    | 29,8    |               | Medium | Amsterdam  | 19,4    | Munich     | 18      |               |
| Vilnius     | 31,0 | London      | 29,8    |               | Medium | Copenhagen | 18      | Glasgow    | 17      |               |
| Paris       | 30,4 | Bordeaux    | 29,7    |               | Medium | Dublin     | 17,9    | Copenhagen | 15,9    |               |
| Madrid      | 30,4 | Cardiff     | 29,3    | max 43; min 0 | Medium | Helsinki   | 17,6    | Dublin     | 15,8    |               |

|            |      |            |      |        |            |      |            |      |
|------------|------|------------|------|--------|------------|------|------------|------|
| Valletta   | 30,2 | Manchester | 29,1 | Medium | Stockholm  | 17,6 | Dusseldorf | 14,9 |
| Wien       | 27,1 | Hamburg    | 23,5 | Medium | Prague     | 17   | Amsterdam  | 14,7 |
| Riga       | 24,7 | Karlsruhe  | 22,5 | Medium | Munich     | 16,8 | Wien       | 14,7 |
| Krakow     | 24,5 | Ljubljana  | 21,9 | Medium | Wien       | 12,5 | Stuttgart  | 14,6 |
| Warsaw     | 23,1 | Luxembourg | 21,4 | Medium | Brussels   | 11,9 | Stockholm  | 14,5 |
| Hamburg    | 21,5 | Prague     | 20,9 | Medium | Sofia      | 11,9 | Frankfurt  | 14,1 |
| Brussels   | 20,6 | Krakow     | 19,7 | Medium | Lisbon     | 11,2 | Helsinki   | 12,4 |
| Manchester | 20,5 | Bucharest  | 17,5 | Medium | Krakow     | 10,6 | Dresden    | 12,1 |
| Lisbon     | 20,3 | Paris      | 17,5 | Medium | Bucharest  | 7,5  | Bordeaux   | 10,7 |
| Sofia      | 19,5 | Sofia      | 17,3 | Medium | Lille      | 7,2  | Prague     | 8    |
| Ljubljana  | 19,1 | Malmö      | 17,0 | Medium | Stuttgart  | 7,1  | Krakow     | 6,9  |
| Athens     | 15,2 | Berlin     | 16,7 | Medium | Dusseldorf | 6,5  | Brussels   | 5,6  |
| Zagreb     | 14,6 | Warsaw     | 16,6 | Medium | Frankfurt  | 5,5  | Sofia      | 5,5  |
| Budapest   | 14,3 | Valletta   | 15,4 | Medium | Turin      | 4,7  | Bucharest  | 5    |
| Stuttgart  | 13,6 | Lille      | 15,2 | Medium | Dresden    | 4,4  | Lille      | 4,5  |
| Lille      | 13,5 | Barcelona  | 14,2 | Medium | Bordeaux   | 3,6  | Turin      | 3,8  |
| Malmö      | 13,2 | Brussels   | 13,5 | Medium | Glasgow    | 2    | Lisbon     | 2,6  |
| Bratislava | 13,2 | Madrid     | 13,2 | Small  | Tallinn    | 10,8 | Cardiff    | 10,2 |
| Bucharest  | 10,9 | Zagreb     | 12,6 | Small  | Valletta   | 9,5  | Karlsruhe  | 8,6  |
| Dusseldorf | 10,4 | Vilnius    | 12,2 | Small  | Luxembourg | 8,6  | Luxembourg | 7,1  |
| Frankfurt  | 9,4  | Turin      | 11,4 | Small  | Riga       | 7,8  | Malmö      | 7,1  |
| Turin      | 6,8  | Tallinn    | 10,8 | Small  | Vilnius    | 6,6  | Ljubljana  | 6,6  |
| Karlsruhe  | 6,5  | Budapest   | 10,2 | Small  | Ljubljana  | 6    | Vilnius    | 6,1  |
| Rome       | 6,3  | Riga       | 9,2  | Small  | Zagreb     | 5,1  | Valletta   | 6    |
| Cardiff    | 6,2  | Athens     | 7,6  | Small  | Bratislava | 4,2  | Zagreb     | 5,1  |
| Dresden    | 5,8  | Lisbon     | 6,5  | Small  | Malmö      | 4,2  | Tallinn    | 4,1  |
| Bordeaux   | 2,5  | Bratislava | 3,0  | Small  | Cardiff    | 2    | Riga       | 3    |
| Glasgow    | 2,0  | Rome       | 2,3  | Small  | Karlsruhe  | 1,4  | Bratislava | 2,1  |

Source: our elaboration

In order to answer RQ1, a Spearman's correlation matrix was constructed. The Spearman's index value of 0.09 reveals that there is no correlation between ENT and HUI for the entire sample (43 cities). Hence, we decided to analyze large-sized cities defined on the basis of their size. In large cities (n=11 cities), we found a significant Spearman's correlation between ENT and HUI. For medium-sized

(n=21) and small (n=11) cities, all the relationships were not significant and were sometimes negative. For large cities, we found a positive relationship between entrepreneurship and the population (0.7), while the correlation between HUI and population was not significant (Table 4).

Table 4: Spearman's correlations between ENT, HUI, and population for each group of cities

|              | HUI-ENT | ENT-population | HUI-population |
|--------------|---------|----------------|----------------|
| Large-sized  | 0.5     | 0.7            | 0.2            |
| Medium-sized | 0.3     | 0.3            | 0              |
| Small-sized  | -0.5    | -0.6           | 0.3            |

\*\*  $p < 0.01$ , \*  $p < 0.05$  (two-tailed).

In order to identify which important dimensions of the quality of life trigger entrepreneurial activities (RQ2), we perform a Spearman's correlation matrix for each group of cities. For large-sized cities, the correlation between ENT and welfare dimension (WEL) was highly significant and positive (0.7). There was a positive correlation between entrepreneurship and the perceived quality of life in terms of ECO (0.5), ENV (0.6), and ICT/MOB (0.5).

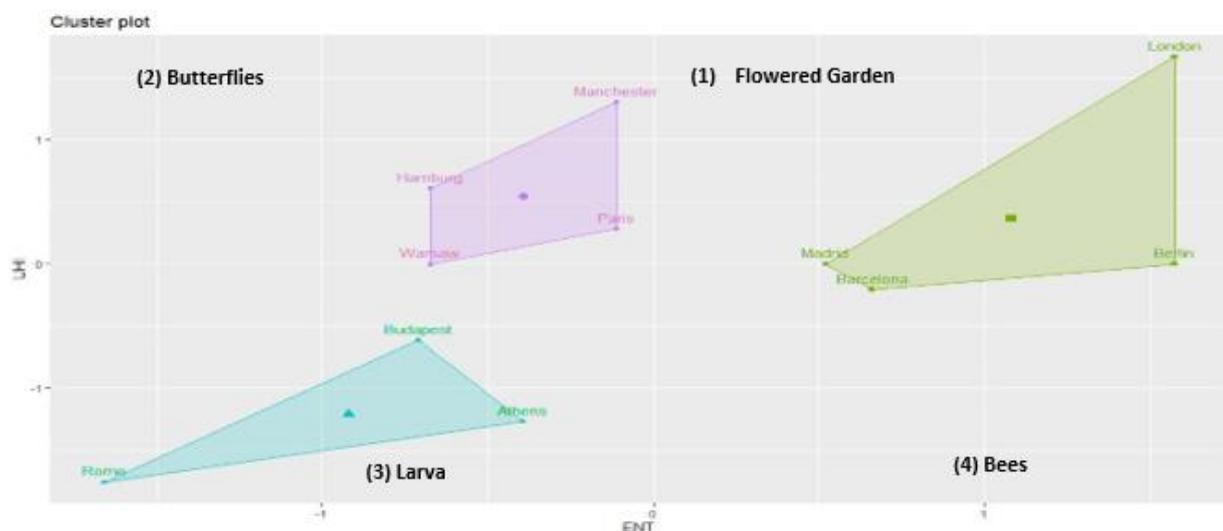
#### *The results focused on large-sized cities*

For large-sized cities, the correlation matrix demonstrates a positive relationship between ENT and HUI (0.5). Moreover, for these cities, the most important subjective indexes of the quality of life that share a positive relationship with ENT are WEL (0.7), ENV (0.6), ECO (0.5), and ICT&MOB (0.5). A positive evaluation of the urban system of welfare, transport, and environment services can provide an "economic leverage," as seen empirically in Ivaldi et al. (2020 b). Considering that the correlation analysis provides only synthetic results, our research also analyzed the position of each city in relation to others belonging to the same urban-sized group. Focusing on the large-sized cities, London and Berlin exhibited the best performance in terms of ENT (average height = 10.5). London is also characterized by a positive perception of quality of life (HUI = 10.1). Cities that lack a correspondence between the values of the average height in terms of ENT and HUI are mainly Hamburg (ENT = 4.1, HUI = 7.5) and Manchester (ENT = 5.7, HUI = 9.2). They show a good HUI (2<sup>nd</sup> and 3<sup>rd</sup>, respectively); however, they have a lower ENT (8<sup>th</sup> and 5<sup>th</sup> respectively). On the basis of the average height in terms of ENT and HUI, we construct a cluster analysis for each urban-sized group (figure 1 a, b, c). For each urban-sized group, we identified four clusters corresponding to four different urban styles. The first cluster comprises cities with a high quality of life and a good entrepreneurship ecosystem (ENT+; HUI+). The presence of an effective entrepreneurial system and positive perceptions of the quality of life are the most important dimensions of smart cities. We name this cluster as the flowered garden because it provides an ideal environment for the creation of the virtual circle of prosperity for entrepreneurial activities (bees) and satisfied citizens (butterflies). In these cities, the perceived high quality of life (butterflies) contributes toward attracting and retaining entrepreneurship, while

entrepreneurship (bees) contributes toward enhancing the perceived quality of life by providing wealth and stimulating innovation, new services, and amenities.

Named “butterfly”, the second cluster comprises cities with a relatively poor entrepreneurship but with a good perceived quality of life (ENT -; HUI+). These cities must improve business conditions as well as stimulate entrepreneurial attitudes and aspirations in order to create a good ecosystem for bees (Porter, 1996). The third cluster (ENT-; HUI-) is formed by “outsider” cities. Referred to as “larva”, these cities have a low perceived quality of life and poor entrepreneurship conditions. Among the large-sized cities, this cluster includes Rome (ENT=1.3, HUI=1.7), Athens (ENT=4.9, HUI=2.9), and Budapest (ENT=4, HUI=4.5). The administrators of these cities must realize that the growth of entrepreneurial aspirations (bees) and business investors is related to the quality of life as perceived by the citizens (butterflies). They should also realize that the capacity to nurture entrepreneurial activities creates the premise for an increase in the quality of life. With proper policies, larva cities can be transformed into butterfly or bees and/or, subsequently, into a flowered garden. The fourth cluster depicts a “beehive” ecosystem oriented to entrepreneurial activities. In the medium-long term, entrepreneurial activity can be adversely affected by the negative perception of residents on their life quality. In this vein, residents can be attracted by other cities in search of better amenities, thereby constraining the development of entrepreneurial activity in their home city. These cities are “beehives” that nurture entrepreneurs; however, these cities must implement immediate intervention to create butterfly factors in order to improve their residents’ perception of well-being and activate the flowered garden.

Figure 1: Clusters and cities’ models: larva, butterfly, bees, and flowered garden



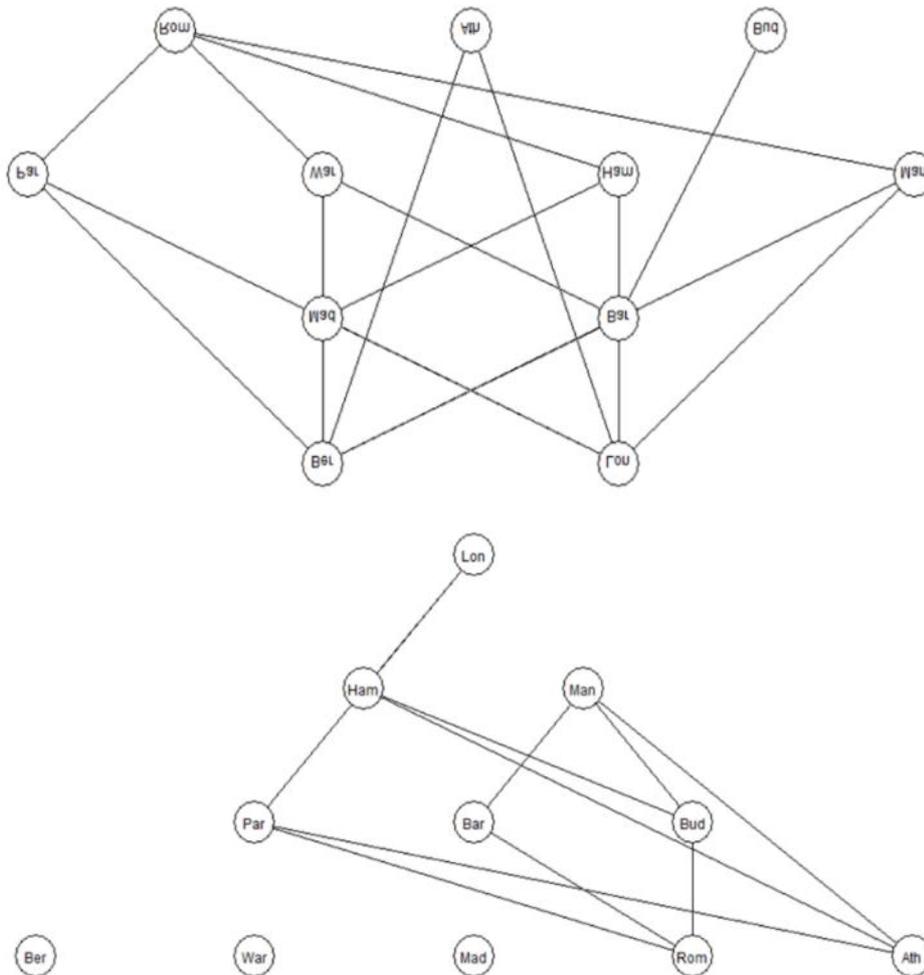
Source: our elaboration

*The hierarchy for large-sized cities*

In order to better understand the ENT and HUI, we use the poset methodology; the Hasse diagrams helps to ordinate the cities from the top- to the lower level, identifying the position of superiority on the basis of the single variables. We focus only on the large-sized cities. Figure 1a represents the results of the cluster analysis for big cities—London (ENT=10.5, HUI=10.1), Berlin (ENT=10.5, HUI=6), Madrid (ENT=7.5, HUI=6), and Barcelona (ENT=7.9, HUI=5.5) are considered “flowered gardens” because they present a good entrepreneurial system and a good perception of the quality of life. It is not a coincidence that no pure “bees” are present among the large cities; consistent with Florida et al. (2013), large-sized cities tend to witness a high perceived quality of life. Figure 2 presents the Hasse diagram, that is, the poset hierarchy. In terms of ENT, London prevails over all cities, except for Berlin (Figure 2a). Looking at the single variables, London ranks first only for the variables STAR (13.65), INV (160.23), and ACC (0.80); Berlin prevails over London only in for the variable UNI (unicorns) (1.18 vs 1.08), which explains the impossibility of comparing according to the theory of the partially ordered sets—Berlin and London. In this vein, London seems more oriented to support new entrepreneurial activities (start-ups that prevail in London are service-oriented to support start-ups), while Berlin presents an entrepreneurship model where unicorns are present (Acs et al., 2017). In case of the “flowered garden” cluster, Madrid (ENT = 7.9) and Barcelona (ENT =7.5) rank 3<sup>rd</sup> and 4<sup>th</sup> as “entrepreneurial” cities. It is not a coincidence that the top ENT cities have recently implemented public policies to promote entrepreneurship. These policies aim to enhance competitiveness at the city and national levels and attract investors. Concerning the “butterfly cities,” Paris (ENT=5.7, HUI=6.7) and Manchester (ENT=5.7, HUI=9.2) present good values, respectively, for the variables INV (33.63) and UNI (0.31). In particular, Paris cannot be compared with Barcelona and Madrid as Paris prevails in the case of variables INV (33.63 vs 29.64 and 21.46) and UNI (0.25 vs 0.18 ad 0.00), demonstrating its ability to attract investors (INV) and support highly successful digital companies (UNI). Manchester is ranked lower than Berlin and London, in terms of all the ENT variables. Nevertheless, Manchester holds the 3<sup>rd</sup> position for UNI (0.31), only after London and Berlin. Concerning the other variables, Manchester oscillates between the 8<sup>th</sup> Position (STAR 2.46) and 10.5<sup>th</sup> position (UNI 0.00). Among Larva clusters, despite being placed at the lowest level of the ordered structure in terms of ENT, Athens (ENT=4.9, HUI=2.9) holds the 3<sup>rd</sup> position in terms of ACC (0.52), but the lowest in terms of STAR (0.52). Hence, Athens is located at the bottom of the graph. Rome (ENT=1.3, HUI=1.7) is the worst city for ENT; it oscillates between the 10<sup>th</sup> and 11<sup>th</sup> positions for all variables. The same analysis has been carried out for HUI. At the bottom of the Figure 2, lower-ranked cities or completely incomparable cities have been depicted. Consistent with the classification of the “flowered garden,” London is ranked as the top city in terms of the HUI (10.1). Concerning the perceived quality of life, London ranks 1<sup>st</sup> for the sub-dimension ENV (average height=10) and 2<sup>nd</sup> for sub-dimensions GOV

(9.8), PEO (8.7), CUL (8.5), and ICT & MOB (9.3). Its tailor-made public policies would ensure that London sustains its success as the United Kingdom's only global city' and a smart city (Turok, 2008).

Figure 2: Large-sized cities' Hasse diagram for ENT (a) and HUI (b)



London is also a top-ranked city in terms of ENT. Hamburg is a “butterfly city”; it is “dominated by London” (Figure 2b) in all the HUI dimensions, but it is considered a good city and comparable (with the same average height) to London in regard to ECO (9.1), PEO (8.7), CUL (8.5), and ENV (10). Among the German cities, Hamburg is known for its lowest unemployment rate and remains particularly attractive to young people (Grossmann, 2006). These elements form the premises for the attraction of entrepreneurial activities. Manchester also ranks best in the ENT domain; it is perceived the best city for GOV (11), WEL (10.1), and ENV (10), owing to important public policies. Manchester is not dominated by any city in regard to GOV. It is important to notice that Berlin and Madrid do not share any relationship of comparability with the other cities. Nevertheless, Berlin holds a 5<sup>th</sup> position; the city is perceived good by its inhabitants for its environment (ECO 9.1) and ICT & MOB (10.6).

These factors are important not only for the perceived quality of life but also for the development of a good environment for ENT. Concerning the performance of the Spanish cities in terms of HUI in the flowered garden cluster, Madrid holds the top position in terms of the perceived PEO (9.7). Although Barcelona does not hold top values, it ranks high for WEL (9.6), owing to the smart city policies aimed to make the city more compact and well-lived (Camboim et al., 2019). Considering that Madrid and Barcelona rank high in terms of ENT, this result supports the relevance of informal factors connected to social norms in Spain (Alvarez et al., 2011).

## **CONCLUSIONS, IMPLICATIONS AND FURTHER RESEARCH**

This study examines the relationship between the perceived quality of life and entrepreneurship at the urban level. The analysis was performed on a sample of 43 smart cities, comprising 28 EU capital cities and 15 non-capital cities. The sub-groups of cities were created on the basis of the urban size. We focus on large-sized cities. First, the correlation analysis shows that entrepreneurship is positively related to the perceived quality of life only in large cities. The findings reveal that a high HUI score is a valuable predictor of ENT at the city level; it confirms that a good city climate stimulates the creation of new and innovative entrepreneurial activities. For the large cities, the positive perception of WEL, ECO, ENV, and ICT&MOB dimensions enhance the entrepreneurial attitude. Our cluster analysis shows that the flowered garden represents the ideal environment for the creation of the virtual circle of prosperity for bees (entrepreneurial activities) and butterflies (satisfied citizens). With proper business-related and smart city policies, the cities in the larva cluster can be transformed into butterflies or bees and/or, subsequently, to a flowered garden. For butterfly cities, it will be crucial to improve business conditions and stimulate entrepreneurial attitudes. However, the entrepreneurial activity of cities in the bee cluster can be adversely affected by the negative perception of residents on their life quality. Flowered Garden has demonstrated the relevance of the implementation of urban strategies aimed at creating a good environment and stimulating entrepreneurship.

The findings suggest that public policies should increase business competitiveness, positively impacting investment, jobs, inhabitants, and visitors. Such policies will help inhabitants, businesses, and institutions experience a new sense of purpose and direction in the city, and thereby contribute toward enhancing the city's reputation. Our study contributes to the debate on urban quality of life and entrepreneurship by providing useful insights to academics and urban policymakers. In terms of theoretical implications, our research advances the body of knowledge in the entrepreneurship literature by bringing together the regional system of entrepreneurship (Szerb et al., 2013; Acs et al., 2014) and the quality of life and well-being dimensions at city (Florida et al., 2013) and smart city levels (Nam and Pardo, 2010); it also develops synthetic indexes to test the relationship between

the perceived quality of life and entrepreneurship. It stimulates the debate on the role of smart cities in promoting entrepreneurship, which currently is an under-investigated topic, especially at the European level. In terms of practical implications, the study may explain policy makers/city managers the importance of the perceived quality of life and indicate the drivers responsible for the creation of an attractive entrepreneurial environment. This study has some inherent limitations to be addressed by future research. First, the investigation is performed on EU cities alone. Second, based on cross sectional data, our analysis fails to capture any causality between HUI and Entrepreneurship; this issue should be resolved in the future research. In addition, the number of variables and attributes that refer to each dimension may be expanded, embodying additional perspectives that could reasonably contribute toward a better understanding of the determinants affecting the development of urban-level entrepreneurship.

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## ARE ASIAN UNICORNS IMMUNE TO COVID-19? A “LIVE” ASSESSMENT

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### ABSTRACT

Coronavirus Disease (COVID-19) has severely hit all sectors of the economy and has threatened the expansion of unicorn firms (companies with a market value of USD 1B+). This paper intends to perform a live assessment of the impact of the COVID-19 pandemic upon unicorn firms in Asia based on a review of current events and a review of the available literature using Clarivate Analytics' Web of Science (WoS) and Scopus. The findings reveal that there have been spillovers into unicorn categories. Asian unicorns face profitability issues and are experience funding scarcity with venture capital firms being conservative towards investing, all of which can lead to a revision of their valuation that may mean they lose their unicorn status. The authors end this research with potential topics and directions for future research.

To the best of the authors' knowledge, this is one of the first studies that addresses the influence of COVID-19 on Asian unicorns and has the intention of contributing to filling this research gap.

*Keywords: Asia, COVID-19, Startups, Unicorns, Unicorn Firms.*

### INTRODUCTION

COVID-19 (also known as the “coronavirus”, “2019 novel coronavirus” or “2019-nCoV”) originated in Wuhan city, Hubei province in China (McKibbin and Fernando, 2020), and disrupted Chinese economy and society with 84,544 confirmed COVID-19 cases and 4,645 deaths as of May 11, 2020 (World Health Organization- WHO, 2020). It is now a global pandemic (Kuckertz et al, 2020), with recent COVID-19 epicenters in the United States of America, Brazil, the Russian Federation, and the United Kingdom (WHO, 2020).

COVID-19 is an acute crisis and is completely different from previous crises classified as such, including hurricane Katrina in 2005, the 2008 financial crisis (Kuckertz et al, 2020), the Asian debt crisis of 1997, the 2016 recession in Nigeria or the 2010 recession in Greece (Ozili and Arun, 2020). This pandemic has imposed unprecedented challenges upon humankind, and all economic sectors (Horowitz, 2020; Elliot, 2020) need to adapt to a new reality and a future wherein business approaches

must be reconsidered (Ting, Ling and Cheah, 2020). This includes both small businesses (the hardest hit by COVID-19) (Baker and Judge, 2020) and unicorn firms.

The concept of unicorns was coined in 2013 and refers to firms that reach a market value of USD 1B plus (Lee, 2013; Henrekson and Sanandaji, 2019; Gornall and Strebulaev, 2020). Unicorns are also known as “tech-startups” with a repeatable and scalable business model (Aldrich and Ruef, 2018; Blank and Dorf, 2013). Decacorns and Hectacorns are valued at USD 10 billion-plus and USD 100 billion-plus, respectively.

As of May 2020, there were 448 unicorns worldwide according to CBInsights (2020), the most reputable list of unicorn firms (Lougen, 2017).

Asia is threatening North America's dominance with astonishing growth in recent years. For example, China (the unicorn champ in Asia) went from zero unicorns in 2013 to 56 in 2014 and then to 109 in 2020, threatening the United States' dominance of the unicorn list in recent years. North America has the highest distribution of unicorns in terms of value, while Asia is the leader in terms of overall market value. The highest valued unicorns in the world are from China: Toutiao (Bytedance) with a valuation of USD 75 billion and Didi Chuxing with USD 56 billion. Taiwan and Macao have no unicorns in their territories. This is a live assessment of the impact of COVID-19 upon unicorns in Asia and will need to be revisited as the pandemic unfolds. To the best of the authors' knowledge, this is one of the first studies to address the influence of COVID-19 upon Asian unicorns and intends to help fill this research gap.

This study is guided by the following main research question: In what ways has the COVID-19 pandemic influenced unicorns in Asia? The remainder of the paper is organized as follows. The next section contains the method used to perform the literature review. Then, results analyses and data visualizations are presented. Finally, a discussion of the findings is offered together with possible directions for future research in the final section.

## **METHODOLOGY**

Based on previous reviews (Canabal & White, 2008; Shen, Puig, & Paul, 2017), the authors performed manual and electronic research of journals indexed in Scopus and Clarivate Analytics' Web of Science (WoS) and included in the Emerging Sources Citation Index (ESCI) and the Social Sciences Citation Index (SSCI) with a high impact quality factor (Paul and Mas, 2019) and dated between 2000 and 2019. The authors included different combinations of the following keywords: “*unicorn*”, “*unicorns*”, “*unicorn firms*”, “*unicorn startups*” and “*unicorns in Asia*” for a more comprehensive search. The search

used both “free terms” and “index terms” funneled using AND, AND NOT and OR Boolean operators.

After selecting the search terms, the search returned 916 documents published in journals and containing the selected terms in their title, abstract, and/or keywords. After eliminating duplicate articles, the list contained 614 unique focal articles. The authors then thoroughly reviewed the abstracts to validate each article’s relevance, using methods proposed by Mayrhofer (2004), Dikova and Brouthers (2016), and Paul, Parthasarathy, and Gupta (2017). Business Collection was selected as a filter, reducing the number of documents to 69. Finally, only articles were selected, excluding reviews, book chapters or editorial notes. This iterative process resulted in a final set of 25 focal documents from 23 journals. The authors selected two unicorn categories as a sample (Fintech and Healthcare) due to the availability of information.

## RESULTS

With 122 citations, the article by Acs, Stam, Audretsch, and O’Connor (2017) provides an explanation of economic ecosystems. Specifically, it shows the contributions made to entrepreneurial ecosystems and concludes with a new line of research that seeks to explain the emergence, development and context of new companies that have had an important impact by controlling new platforms. The article by Miller and Acs (2017), with a total of 28 citations, uses Frederick Jackson Turner's thesis on American democracy to build a framework for understanding the US university campus as an entrepreneurial ecosystem. The third publication, with 25 citations, is an article where Canniford (2005) discusses certain problems associated with ethnography in global cultures. Its value lies in its reevaluation of the experience of global culture in the world’s surf scene. It provides a practical solution for cultural research and highlights the importance of a red-light approach to constructing an appropriate theory. 2019 was the most productive year with five articles. 65 authors were involved in a total of 19 documents found. Acs, Z.J has the greatest participation with a total of two publications. The remaining 64 authors have only one publication.

### *Data Visualization*

This research used VOSviewer software to create a bibliographical map containing co-occurrence, co-authorship, and co-citation.

### Co-occurrence

Co-occurrence analysis was used for this map. The unit of analysis was all keywords and the counting method was complete. The minimum number of occurrences of a keyword was one. 165 keywords met the proposed limit. The keyword with the highest connection strength was “unicorns”, with a total of 42 links; followed by “innovation” with 34, “entrepreneurship” with 23 and “business model” with 21 (Figure 1).

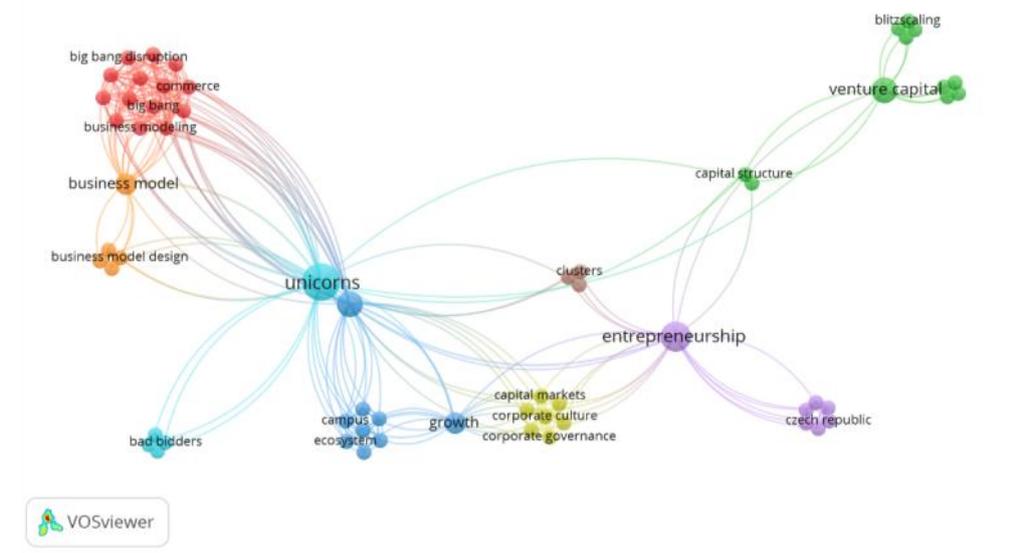


Figure 1. Word co-occurrence map (full counting)

### Co-authorship by country

The authors ran this map using a co-authorship analysis. The unit of analysis was per country and the counting method was complete. The minimum number of documents chosen per country was one. The authors observed a small cluster of countries with connections between them: The United States, Canada, the United Kingdom, Denmark, Australia, Taiwan, the Netherlands, and Japan. Finally, concerning connection strength, the authors found that the country with the highest connections is the United States with seven, followed by the United Kingdom with five. There are other countries with a connection strength of zero that do not appear on the map: Czech Republic, Germany, India, Italy, New Zealand, and Sweden.

### Co-citation

The authors ran this map using co-citation analysis. The unit of analysis was cited sources and the counting method was complete. The minimum number of citations per established source was two and, of 727 sources, only 145 met this condition. The map returned a high connection strength. The

highest was 1468, obtained by the “Small Business Economics” magazine, followed by the “Journal of Business Venturing” with a connection strength of 782. Finally, “Entrepreneurship Theory and Practice” had a connection strength of 420.

## DISCUSSION

Intellectual output by unicorn companies is low but has been increasing. In Asia, China is the leader in terms of performance and dominance; it is also the second country with the highest presence of unicorn companies (Marrugo et al 2018).

All countries around the globe have developed policies to fight the COVID-19 pandemic. China: 1) Granting regulatory forbearance to banks, and principal or interest moratorium to debtors affected by COVID-19. 2) Central banks’ provision of liquidity to financial (bond and equity) markets. 3) Public quarantine. 4) Social distancing policy. 5) Travel ban. 6) Visa denial and suspension. Japan and South Korea: 1) Lowering interest rates by Central banks. 2) Public quarantine. 3) Social distancing policy. India 1) Provision of income support for individuals. 2) Public quarantine. 3) Border quarantine. 4) Social distancing policy. 5) Shutdown of air, land, and sea borders. Singapore 1) Social distancing policy. 2) Visa denial and suspension

Some documents have a high status while simultaneously being private, making it difficult for authors who need use the information contained in them to freely access these documents. Many of these texts prepared by private companies are available to researchers under Non-Disclosure Agreements (NDA) if the information is used in a truthful and correct manner (Cortés-Sánchez, 2020; Kodynetz & Maidanyk, 2019). Here is a breakdown of unicorns per Asian country China 109, Hong Kong 3, India 20, Indonesia 5, Japan 3, Israel 7, Philippines 1, and Singapore 2.

The following table summarizes all existing unicorns in Asia organized by category.

| Category                    | Companies   |
|-----------------------------|---|
| Artificial Intelligence     | China: Toutiao (Bytedance), SenseTime, Face++ (Megvii), Cloudwalk, Horizon Robotics, YITU Technology, Cambricon, Preferred Networks, 4Paradigm, iCarbonX, Momenta, Unisound, Intelifusion. Israel: Infi, OrCam Technology, Lightricks. Singapore: Trax. |
| Auto & Transportation       | China: Didi Chuxing, Hello TransTech, Xpeng Motors, Youxia Motors, Lixiang Automotive, BYTON, CAOCAO, AIWAYS, Tuohu, Leap Motor, Banma Network Technologies. India: Ola Cabs, Ola Electric Mobility. Israel: Gett. Singapore: Grab.                     |
| Consumer & retail           | China: EasyHome, MINISO Life, Trendy Group International, Yijijupu (易极). South Korea: L&P Cosmetic.   |
| Cybersecurity               | China: Tongdun Technology.  |
| Data management & analytics | China: Jusfoun Big Data, DT Dream.  |

|                                     |  |
|-------------------------------------|--|
| E-commerce & direct-to-consumer     | China: Guazi (Chehaoduo), Lianjia (Homelink), Ziroom, VANCL, Xiaohongshu, SouChe Holdings, Aihuishou, Huimin, eDaili, Koudai, Miaoshou Doctor, Jiuxian, Womai, Fanli, BeiBei, Zhaogang, Mia.com, Mofang Living, Zhuan, JOLLY Information Technology, KK Group. India: Snapdeal, Lenskart. Indonesia: Tokopedia, Bukalapak. South Korea: Coupang, Wemakeprice, MUSINSA. |
| EdTech                              | China: Vipkid, Yuanfudao, Luoji Siwei, iTutorGroup, HuJiang, 17zouye, Huike Group, KnowBox. India: BYJU'S.   |
| Fintech                             | China: CGTZ, Linklogis, 100credit. Hong Kong: WeLab. India: One97 Communications, BillDesk, Pine Labs, PolicyBazaar. Indonesia: OVO. Japan: Liquid. South Korea: Viva Republica (Toss).  |
| Hardware                            | China: DJI Innovations, Bitmain Technologies, UBTECH Robotics, Royole Corporation, Meizu Technology, Coocaa, Geek+, China Cloud, Terminus Technologies, Orbbe Technology. Israel: Infinidat  |
| Health                              | China: GuaHao (We Doctor), United Imaging Healthcare, Gan & Lee Pharmaceuticals, Ding Xiang Yuan, Medlinker, LinkDoc Technology. South Korea: Aprogen.   |
| Internet software & services        | China: Beike Zhaofang, Zhihu, Xinchao Media, WTOIP, Nxin (农信互联), 58 Daojia, Kujiale. India: Zomato, Dream11.   |
| Mobile & telecommunications         | China: Kuaishou, Meicai, Huaqin Telecom Technology, Yixia, Apus Group, LinkSure Network, Yidian Zixun, Poizon, Wacai, Maimao. India: Hike, InMobi. Israel: ironSource, AppsFlyer. Japan: SmartNews. South Korea: Yello Mobile.   |
| Other                               | China: Ucommune, Dadi Cinema, Aijia Life, Perfect Diary. Philippines: Revolution Precrafted. India: ReNew Power. South Korea: Krafton Game Union, GPClub.  |
| Supply chain, logistics, & delivery | China: Manbang Group, Yiguo (易国), Yimidida, YH Global, Dada-JD Daojia, Shansong Express (FlashEx). India: Swiggy, Udaan, Delhivery, BigBasket, Rivigo. Indonesia: Go-Jek. Hong Kong: Lalamove.   |
| Travel                              | China: Mafengwo, Tujia, XiaoZu. India: Oyo Rooms. Indonesia: Traveloka. Hong Kong: Klook. South Korea: Yanolja.  |

Table 1. Unicorns in Asia.

Source: Authors based on CBinsights (2020).

The Asian unicorn scene is dominated by the e-commerce sector, followed by auto transportation, supply chain, mobile & telecommunications, and artificial intelligence. The following table (2) presents the top 10 highest-value unicorns in Asia, all of them Hectacorns. 80% of these are in China and India (known collectively as *Chindia*), 10% are in Singapore and 10% in Indonesia.

| Company              | Valuation (\$B) | Country | Category                    |
|----------------------|-----------------|---------|-----------------------------|
| Toutiao (Bytedance)  | \$75,0          | China   | Artificial intelligence     |
| Didi Chuxing         | \$56,0          | China   | Auto & transportation       |
| Kuaishou             | \$18,0          | China   | Mobile & telecommunications |
| One97 Communications | \$16,0          | India   | Fintech                     |
| DJI Innovations      | \$15,0          | China   | Hardware                    |

|                      |        |           |                                     |
|----------------------|--------|-----------|-------------------------------------|
| Grab                 | \$14,3 | Singapore | Auto & transportation               |
| Bitmain Technologies | \$12,0 | China     | Hardware                            |
| Go-Jek               | \$10,0 | Indonesia | Supply chain, logistics, & delivery |
| Beike Zhaofang       | \$10,0 | China     | Internet software & services        |
| Oyo Rooms            | \$10,0 | India     | Travel                              |

*Table 2. Top 10 unicorns in Asia*

*Source: Authors based on CBInsights (2020)*

#### *Spillover to Venture Capital Firms*

The value of privately held unicorns grew exponentially from 2013 until the 3rd quarter of 2019. Venture capital investments in China in 2018 (USD 71 billion) surpassed the US market (USD 70 billion) and China's Pearl River Delta is seeing more activity than Silicon Valley (Alon et al, 2018). In Asia, the average time to become a unicorn is six years, while 18% of unicorns took more than nine years to achieve this status. There were more unicorn exits (the moment a unicorn goes public or is acquired it is no longer considered a unicorn) from North America than from Asia in 2019 (Statista, 2020). Table 3 breaks down the number of Asian unicorns exits versus North American ones.

| Year               | Asia (quantity) | North America (Quantity) |
|--------------------|-----------------|--------------------------|
| 2011               | 1               | 3                        |
| 2012               | 0               | 3                        |
| 2013               | 0               | 3                        |
| 2014               | 3               | 8                        |
| 2015               | 1               | 10                       |
| 2016               | 4               | 9                        |
| 2017               | 7               | 11                       |
| 2018               | 22              | 21                       |
| 2019               | 13              | 23                       |
| 2020*(as of 01/20) | 0               | 1                        |
| Total              | 51              | 92                       |

*Table 3. Asian vs. North American unicorn exits. 2011-2020*

*Source: Authors based on Statista (2020).*

In terms of the global deals, funding declined during the final quarter of 2019 when COVID-19 appeared in Wuhan, China in December of that year to then spread all over the world (Filipe, 2020). COVID-19 began shaking unicorn deal activities worldwide, with global funding falling 16% in Q4'19 compared to Q3'19, and global financing down 12%. In Q4'19, Asia had a total of 1,381 deals with USD 13,5B invested compared to Q4'18 where it saw 1,366 deals. However, in general, financing declined globally overall.

#### *Spillover to Fintech unicorns*

Currently, there are 67 fintech unicorns in the world valued at USD 252,6B, broken down as follows: North America with 38, Europe with 12, South America with three, Australia with two and Asia with 12. The top five most valuable fintech unicorns can be found below

Stripe United States \$36B, Nubank Brazil \$10B, Ripple United States \$10B, Coinbase  
 United States \$8B, Robin Hood United States \$7,8B CBInsights (2020).

Fintech saw its worst Q1 since 2016 for fintech deals and its worst Q1 for funding since 2017 (CBInsights, 2020). *“China saw its worst quarter for fintech since 2015 as the country shut down to fight the first coronavirus outbreak, with just 29 deals totaling \$175M in Q1’22. As the first country to fight and start to recover from coronavirus, what happens in China could be a gauge of what is ahead for fintech as the virus spreads across other regions”* (CBInsights, 2020). Fintech unicorn birth and exits data during COVID-19 is also shown below. From January to April 2020, only three unicorns were born: Pine Labs (USD 1.6B) in Asia, and Flywire and Highradius with USD 1B each, both from North America. On the other hand, several fintech exits have occurred

Acquirer, Target and Value (USD): Morgan Stanley E\*TRADE \$13B, Intuit Credit Karma  
 \$7.1B, VISA PLAID \$5.3B, Ally CardWorks \$2.65B, SoFi Galileo \$1.2B,  
 LendingClub Radius Bank \$185M

#### *Spillover to Healthcare unicorns*

There are 42 Healthcare unicorns worldwide, valued at USD 101.5B and distributed as follows: 21 in the United States, ten in Asia (nine in China and one in South Korea), nine in Europe, and two in the Middle East. The COVID-19 pandemic helped the healthcare unicorn club grow with developing trends like telehealth, medical devices, and mental health. In China, healthcare unicorns were hit with a reduction of deals of over 50%, quarter over quarter.

Insurance unicorns waived COVID-19 related expenses and face a challenge to adjust future operations as the global unemployment rate becomes the next pandemic. Several healthcare unicorns also formed partnerships *“to accelerate development of and expand access to COVID-19 tests, vaccines, treatments, and critical medical equipment”* (CBInsights, 2020), this is expected to become a permanent situation in the post-COVID-19 era depending on the success rate of such collaborative work.

Telehealth has been another winner under COVID-19. Patients are becoming accustomed to it and providers are overcoming different challenges, for example those related to reimbursement policies. It is also expected that this affordable trend will become part of daily life in a post-COVID-19 world. Startups to highlight include *Alto*, a Telepharmacy startup that provides delivery of prescriptions, phone support, and works closely with doctors and insurance companies, and Teletherapy startups with great success like *Lyra* (mental health), *Halcyon health* (behavioral health) and *HingeHealth* (physical health). Medical devices have also seen development due to the COVID-19 pandemic, mostly to improve infectious disease diagnostics. This includes companies like *Karius*, *Lucira Health*, *Mammoth Biosciences* and *Outset Medical*.

Digital Health in China in Q1'20 (USD 318M with 27 deals) has gone back to Q2'17 levels (USD 167M with 25 deals). However, several Chinese companies have been boosted during COVID-19: WeDoctor (微医集团): Global consultation platform; DXY.cn (丁香园): Provides a map that tracks COVID-19 in China; Spring Rain Software (also known as ChunyuYisheng): Online consultations; Zhangshang Tangyi (Literal translation: Mobile Sugar Doctor): A diabetes management app; Nuanwa Technology: Health Insurance Infrastructure; Insgeek: Group Health Insurance Platform; MediTrust Health: Drug & Diagnostics Access Solutions

### *Spillover to Investors*

In Q1'20, the COVID-19 pandemic forced investors to reduce investment and focus on strengthening portfolios. This research also found that several unicorns do not generate profits, including Communications (USD 16B), Ola Cabs (USD 6.3B), and Swiggy (USD 3.3B). The ability to generate profits is being observed in detailed by all investors. The other challenge faced by Indian unicorns is related to raising capital. Chinese investors (who invest the most in India), are experiencing investment restrictions. However, they still have the capital to take on a longer lockdown.

Based on this, unicorns expect their valuation to be revised shortly, which may potentially result in a loss of their unicorn category. The COVID-19 pandemic is benefiting multiple Indian unicorns including BigBasket (Supply chain, logistics, & delivery) due to an increase in e-commerce, BYJU'S (Edtech, online education) and Policybazaar (Fintech, life insurance products).

## **CONCLUSIONS**

2020 has brought about a recession unprecedented in modern history due to COVID-19. In this article, the authors have provided insights on how the ongoing COVID-19 situation influences Asian unicorns. Unicorn firms have a market value of USD 1B, but this does not make them at all immune to COVID-19. Even before the pandemic, Asian unicorns were already facing profitability issues which could be aggravated by the shock to all levels of society caused by COVID-19.

Investor appetite for unicorns has also decreased due to widespread panic. This will soon result in a scarcity of funding soon requiring unicorns to optimize the capital raised before COVID-19. Venture capital firms expect to be more conservative while investing and will pay closer attention to the unicorns' valuation. A revised valuation may lead to losing the unicorn category. The pandemic has created losers (Fintech) and winners (Healthcare) depending on firms' capacity to capitalize on the opportunities offered by COVID-19.

Future studies could look at how COVID-19 will impact unicorns' geographical collocation, other categories of unicorns in Asia and their births-to-exits ratio. Another direction could be to determine

how COVID-19 will influence the innovation spirit of Asian entrepreneurs. Unicorns have always been born, even in the most hostile crises.

This research looked at unicorn firms in Asia. Thus, the authors suggest studying unicorns from other regions such as Europe or North America to then perform a comparative analysis.

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## VALUE – THE “ATOM” OF THE ECONOMY

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### ABSTRACT

This is a conceptual paper about the most fundamental concept in the science of business administration, *value*. It traces its history, discusses the demarcation approach of the *service dominant logic*, arguing against it. We hold that *customer co-creation* is already presumed in the concept of use-value; the customer can realize the value-potential of a product or a service by *satisfying experiences* from the offering. Under certain circumstances *relationships* influence the value, often motivating temporal suspension of market relations. In other cases, relationships do not give the potential for additional value and the exchange between seller and buyer continues to be a transaction.

The *micro-foundations of value* are searched in the social psychology of these experiences and how they build the value.

The paper suggests the need for radical re-focusing of business practices.

*Keywords: Value, exchange-value, use-value, co-production, relationship marketing, transaction marketing.*

### INTRODUCTION

Value is the fundamental defining concept of the economy. This paper traces the history of the concept, its psychological micro-foundations, and the implications, requiring radical changes in business practices.

The scientific community of Business Administration is probably the sector of human activity that first embraced the cyclical economy, systematically recycling concepts, by trying to rebrand a phenomenon with new names. In most cases this can be ascribed to ignorance of the origins of the concepts and in some cases it a conscious strategy of attributing an important concept to oneself. In another paper (Philipson, 2019), we have discussed such recurrent rebranding of the phenomenon commonly known as destructive innovation. The same rebranding holds for the concept of value.

## THE HISTORY OF THE CONCEPTS

### *Value, use-value and exchange value*

Ballantyne and Varey (2006) traces use-value to Vargo and Lusch (2004a), also acknowledging Bitner (1992). Sandström, Edvardsson, Kristensson and Magnusson (2008:112) hold that Vargo and Lusch (2004a) introduced a new value perspective, by coining the concept of value-in-use for the customer. They wrote that the value of a service was previously regarded as a ratio between service quality and cost. In the new perspective, value is realized when a service is used. Users of services are thus both the co-creators and the judges of service value (Sandström *et al.*, 2008:114).

Holbrook recognizes the vast legacy of the fundamental concepts: “...*the basic concepts involved could be traced back through the work of (say) Sid Levy at Northwestern in the 1960s, Wroe Alderson at Wharton in the 1950s, and the economists Lawrence Abbott in the 1950s or Alfred Marshall in the early 1900s, all the way to Adam Smith in the Eighteenth Century (e.g., Alderson, 1957; Boyd and Levy, 1963; Woods, 1981).*” “*What these works [Pine & Gilmore, 1999; Schmitt, 1999; Smith & Wheeler, 2002; Shaw & Ivens, 2002; LaSalle & Britton, 2003] share in common – beyond their insistent emphasis on the importance of the consumption experience – is their infallible tendency...[with the partial exception of LaSalle & Britton, 2003]... to repeat the mistake that Beth and I made by forgetting or neglecting to acknowledge the previous thinkers who have pioneered the relevant concepts.*”(Holbrook, 2006:715)

We can add that Vargo and Lusch (2004a, 2004 b) does not even mention Normann (1984) [in Swedish, 1975].

Holbrook (2006) is citing Abbot (195540): “*What people really desire are **not products** but **satisfying experiences**. Experiences are attained through activities. In order that activities may be carried out, physical objects or the services of human beings are usually needed. Here lies the connecting link between man’s inner world and the outer world of economic activity. People want products because they want the **experience-bringing services** which they hope the products will render.*” [italics added by Holbrook].

Bowman and Ambrosini (2000:177) go further back, holding that the distinction between use value and exchange value was made by classical economists (Smith, Ricardo, and Marx). Use-value, or value-in-use, is the reason that a customer buys an offering (a product or service). It is not the offering in itself, but its potential for providing experiences of value-in-use that interests the customer.

Marx “theory chapter” for the research presented in his three volume work *The Capital*, was called *Theories of Surplus-Value*. It is three volumes of together more than 4200 pages, presenting extant research at the time. “*Use values become a reality only by use or consumption...*” (Marx, 1867/2015:27) “*As use values, commodities are, above all, of different qualities, but as exchange values they are merely different quantities, and consequently do not contain an atom of use value.*” (Marx, 1867/2015:28).

### *Differences between products and services*

Three approaches have been proposed for the study of services, the demarcation approach, the assimilation approach, and the synthesis approach (Love and Mansury, 2007; Castro, Montoro-Sanchez and Ortiz-De-Urbina-Criado, 2011).

The *demarcation approach* argues that services are distinctively different from products (Arvanitis, 2008; Hipp and Grupp, 2005), based on the intangible and interactive nature of services and holds that no comparison between manufacturing and services is possible.

The service-dominant logic holds that services are different from products (Vargo and Lusch, 2004a, 2004b). It is an example of the demarcation approach, which holds that the assumption that services have the same characteristics as products is wrong, because services have particularities (Arvanitis, 2008). According to extant literature, services are characterized by the close interaction between production and consumption (co-terminality); intangible content; the important role played by human resources; and the critical role played by organizational factors (Sirilli and Evangelista, 1998; Sundbo and Gallouj, 2000; Sarkar and Carvalho, 2005; Alam, 2006). These distinctive characteristics, and rapid technological and non-technological change, make innovation a of service a complex issue (Camacho and Rodriguez, 2008). Hence, it is important to verify if the manufacturing approach used during decades can be applied to services, or if service innovation is so peculiar that a new approach is needed.

The *assimilation approach* suggests that the features of services are not unique and can also be applied to products (Drejer, 2004).

The *synthesis approach* attempts to cover the missing aspects of both the demarcation and assimilation approaches (Castro, 2011).

Payne, Storbacka and Frow (2008:83), hold that it is central to the service-dominant (S-D) logic that the customer becomes a co-creator of value. We hold that the synthesis approach is valid and that service-dominant logic, with its demarcation approach, is wrong; even for products the firm only produces the *potential* for customers to realize value-in-use: "A quarter of a century ago, however, Alderson (1957) drew a sharp distinction between buying and consuming... **By focusing on the configuration of activities involved in consumption, this viewpoint calls attention to the experiences with a product that one gains by actually consuming it.**" (Holbrook & Hirschman, 1982a:137). [our emphasis] "...all products are services so that the distinction between services marketing and other kinds of marketing disappears." (Holbrook, 2006:715)

The synthesis approach accepts that there are differences between products and services, but hold that these are not systematic. Many services have tangible elements, e.g. the food in a restaurant or the repair of a pair of shoes. Consumption is not always co-terminal with the production of the service, e.g. the value of the shoe-repair is consumed in the continued use of the shoes. Human resources are

often important for the consumption-experience of a product. The sale of a pair of jeans is influenced by the sales-personnel in the retail store. The same or similar experiences can often be given as both products or services, e.g. the streamed film on a television – a service – and the same film on a bought CD, a product..

In the fundamental aspect of how value is produced, the firm's offering, whether a product or a service, only gives the *potential* for satisfying experiences. The customer's experiences of using the product are made during the consumption of the product, which is extended in time, see figure 1.

#### *Co-creation of value*

*"...the user is always involved in the co-creation of value (Prahalad and Ramaswamy, 2000), and that value will not be gained until the customer uses the service (Vargo and Lusch, 2004b)." (Sandström et al., 2008:116)*

*"Central to service-dominant (S-D) logic is the proposition that the customer becomes a co-creator of value." (Payne et al., 2008:83)*

*"...we concur with the view of Woodruff and Flint (2006) that relatively little is known about **how** customers engage in co-creation." (Payne et al., 2008:83). [our highlight]*

## **SATISFYING EXPERIENCES**

Typically, firms have *produced* the offering and left to the customer to *realize the experiences* that the offering can give. The realization of the value that the customer gets out of the offering, is not given by the offering in itself. That it only has the *potential* to give certain experiences, has come to be recognized as the co-creation of value (Prahalad and Ramaswamy, 2004a, 2004b; Payne et al., 2008).

The customer is not buying to buy, but to *use*. But firms historically put all their effort in getting the customer to buy. If they were adhering to a relationship management approach, they might later – directly or indirectly – ask the customer if she was satisfied. They cross their fingers that the customer manages to realize *the potential of the offering*, but they seldom help the customer to enact the use-experience in the ultimate way. *"... traditional consumer research has focused almost exclusively on the choice process that generates purchase decisions culminating in actual buying behavior. Thus, brand purchase is typically viewed as the most important behavioral outcome of the information processing model." (Holbrook and Hirschman, 1982:137). "In exploring the nature of that overall experience, the approach envisioned here departs from the traditional positivist focus on directly observable buying behavior and devotes increased attention to the mental events surrounding the act of consumption." (Holbrook and Hirschman, 1982:37)*

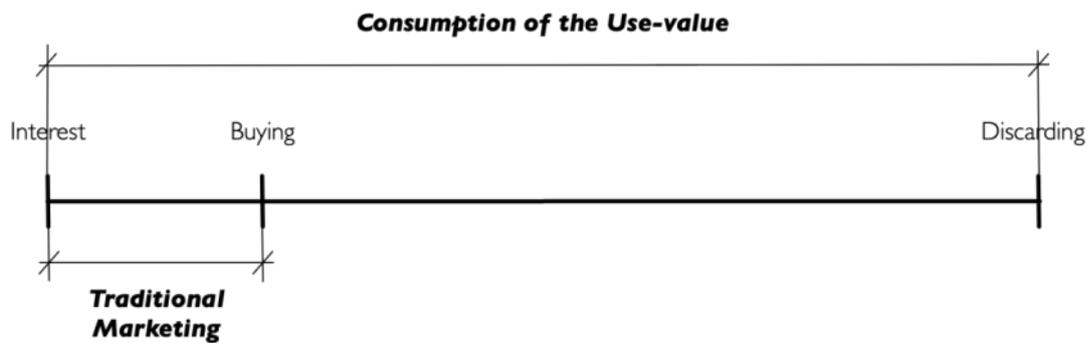


Figure 1. The consumption timeline, own.

The success of the iPhone is to a large extent due to the iTunes store, where customers are helped to realize potentials, in the form of third-party applications, music, or films, which even Apple did not anticipate.

As a consequence, marketing has moved from just influencing the buying process, to recognize that it potentially can influence the value that the customer experiences after she has bought it. This began in services, where production and consumption are often concurrent. To some extent it has also become part of the marketing of products, such as the app stores that increases the value of an already bought smartphone. But for most products, such influence during the consumption timeline is very limited. When does Wrangler address the customers that have already bought its jeans? Except for inducing them to buy another pair?

The experience of the consumption builds expectations of future experiences, influencing whether to buy the same or another product from the same firm, or to look for a competitive offer. For the satisfaction of many needs the customer has accumulated many experiences. However, these do not build knowledge, just *sense*, or tacit knowing. Few offerings are discussed with others, Hence, the perspective of the other does in most cases not enter into the decision process of the consumer. Except for capital goods, such as a car or a refrigerator, for which information is often processed and sometimes discussed, *explicit knowledge* is not part of the considerations. This in contrast to industrial customers, for which several people can be involved in the purchasing decision.

The so-called consumer culture theory (Arnould and Thompson, 2005) holds that consumers chose products as identity markers, to "dress up their identity". This is relevant for a limited range of products, for a limited, and for a limited range of consumers, who would buy clothes or jewellery that is normally not within their budget range. Sometimes such products are bought second hand or by restricting themselves severely for other products. For someone else it could be a motorbike. You cannot readily discern if such seemingly frivolous consumption choices are an exposition of such identity dressing. The choice could be made without bothering about the concerns of others. Of all the values sold in the market, such identity dressing is marginal as a general phenomenon, as 60% of US

consumers earn less than 40.000 USD; hence the room for such spending is very limited. That said it could be extremely important for a specific brand.

## DOES RELATIONSHIP MANAGEMENT CHANGE ANYTHING? – THE DIFFERENCE BETWEEN THE VALUE OF TRANSACTIONS AND RELATIONS

This is a reflection on how value theory can explain the emergence of relations in markets and hence also one reason why there is an inherent drive towards monopolistic competition in capitalism.

### *Transactions*

For a transaction to take place, the buyer has to value the offering ( $v_b$ ) more than the price,  $p$  (including other efforts). Thus, what she has to pay for the offering must have less value than the the potential of positive experiences by consuming the offering,  $v_b > p$ . The seller at the same time has to value the price,  $p$ , he gets for the offering more than the value,  $v_s$ , he might have by keeping the offering, either for his on use or for potentially selling it for a higher price later; hence  $p > v_s$ .

The situation is based on an asymmetric valuation of the value of the product. Hence, in order for the transaction to take place, the value of the product must higher for the buyer than for the seller, or  $v_b - p > 0$  and  $v_s - p < 0$ ; hence  $v_b > v_s$ .

### *Relations*

The 4Ps are presumed to be based on a faulty understanding of the relation to the consumer:

*"...the marketing mix and its Four Ps constitute a production-oriented definition of marketing, and not a market-oriented or customer-oriented one..."* (Grönroos, 1997:324). *If co-operation between seller and buyer give added value, as Grönroos (1997) holds, this added value,  $\partial v$ , is created; at a cost that increases the price (in money and/or costs for both sellers and buyer) with  $\partial p$ . This added value and added costs are shared between the buyer and seller in such a way that the buyer gets a percentage,  $a$ , of the added value and  $b$  of the added costs. The seller gets a percentage of the added revenues,  $1 - a$ , and  $1 - b$  of the added costs. In order for a relationship to be built, a win-win-situation (see game theory) must be created; meaning a situation where  $\partial v > \partial p$ . For the buyer the following has then to be true:  $v_b + f\{\partial v * a\}_b > p + \partial p * b$  and for the seller:  $p + \partial p * (1 - b) > v_s + f\{\partial v * (1 - a)\}_s$ . The buyer has to get  $f\{\partial v * a\}_b > \partial p * b$ , or  $f\{\partial v * a\}_b - \partial p * b > 0$ , and for the seller  $\partial p * (1 - b) - f\{\partial v * (1 - a)\}_s > 0$ .*

By mathematical modelling, it can be shown that a saddle point often can be established for building value by relations between the parties, essentially replacing the market with temporal organized planning, eventually an organized supply-chain. This can be the case when the consumer appreciates the small talk with the shoe-repair man, which becomes part of the

experience, or when the new functionalities of a new computer from the same brand gives innovations motivating loyalty. More often it is the relation between two companies, where the seller gives the buyer values increasing the value proposition of the end customer. This is the situation that Grönroos (1997) presumes is now a generalized reality. But often this is not the case and strict transactional market relations are preferred (Zineldin and Philipson, 2007).

## THE MICRO-FOUNDATIONS OF VALUE: EXPERIENCES BASED ON SENSORY CUES AND EMOTIONS

The customer is not buying to buy, but to *use*. But as discussed above, firms often put all their effort in to get the customer to buy. They might ask if the customer was satisfied. They cross their fingers that the customer manages to realize the potential of the offering, but they seldom help the customer to *enact the use-experience* in the best way.

*How do these experiences develop in the mind of the consumer?*

The higher mental functions are built of the cognitive and emotional dialectics from *action*, to *experience*, and *reflection* over such experiences (Vygotsky, 1962). Human experience is diverse and individual. Hence, the associations are not the same from one individual to another. These experiences are conscious and unconscious. They are accumulated in the human memory. Tacit knowing could be said to be the mass of these associations. Such *accumulation of experiences* does not build knowledge, but *sense*, or *tacit knowing* as suggested by Polanyi (1961, 1962, 1968) or in the form of a "Gestalt", The sense of a word is the aggregate of all psychological facts [Gestalt] that arise in our consciousness, provoked by the word (Wertheimer, Brett, King, Peckler and Schaef, 1992). Polanyi (1962:604) is drawing on Gestalt psychology in his attempt to establish the logic of tacit knowing. *Unconscious tacit knowing* is not accessible for the individual herself. It is not in, what Polanyi (1962) calls, focal awareness. It must be revoked, by means unknown to the individual and it is even more difficult, if not completely impossible, for another person to provoke the making conscious of such knowing (cf. the role of the psychotherapist). Intuition fills the gap left open in the dynamics of tacit knowing (Polanyi, 1962:322).

Sensory cues evoke *mental imagery* based on earlier experience (Holbrook, 1982:112). This imagery is the essence of *tacit knowing*. "...the experiential perspective focuses on cognitive processes that are more subconscious and private in nature. Interest centers on consumption-related flights of fancy involving pictorial imagery (Richardson 1969), fantasies (Klinger 1971), and daydreams (Singer 1966)." (Holbrook and Hirschman, 1982:136).

There is no absolute distinction between conscious and unconscious knowing. As the individual's experience grows and deepens, old experiences retreat to the background and new ones take the

foreground. Neither is there a garbage can at the end of this displacement, other than dementia. Subdued unconscious knowing can come to the foreground again, provoked by new experiences or tacit inferences to old ones. The distinction between explicit, conscious, and unconscious tacit knowing is therefore fuzzy. Knowing emerges through the network of interactions and is distributed and mediated among the interacting humans and their tools (Cole and Wertsch, 1996, cited after Lipponen, 2002:74).

### ***The role of emotions***

*“Using a hedonic consumption perspective, products are viewed not as objective entities but rather as subjective symbols. The researcher is concerned not so much with what the products as with what it represents. Product image, not strict reality, is a central focus; consumer **emotive response**, rather than just semantic learning.”* (Hirschman and Holbrook, 1982:93). [our highlight] The need to work out suitable procedures for investigating the consumer's emotional experiences must therefore be considered a challenging but fascinating task along the road toward a fuller understanding of the experiential aspects of consumption (Holbrook, 1982:116).

Vygotsky believed that affect and intellect are not two mutually exclusive poles, but two inseparable mental functions (Levykh, 2008:85). He emphasized that culturally developed emotions are socially constructed and internalized. They play a key role in shaping motivation and thought (Levykh, 2008:92, 94; Mahn and John-Steiner, 2002:46). The individual emotional experience seems to be foundational (consciously, subconsciously, and unconsciously) to the person's perception, attention, memory, decision-making, behavioral mastery, and overall world orientation (Levykh, 2008:84). Motivation is the mediation between emotions and thought. Motive gives birth to thought, to the formation of thought itself, to its mediation in internal words, to the meanings of external words, and finally to words themselves (Mahn and John-Steiner, 2002:55).

### ***Knowledge***

The development of knowledge is not a purely individual act. If the use-value or value in use is the experience of the satisfaction with the product in use or the service. To learn is not an individual act, not even the individual's learning is done in isolation; it needs “the other”. Knowledge and learning are to a large extent only achieved within a community of practice. (Philipson and Kjellström, 2020:13). As explicit knowledge is harboured in the brain, it is associated with tacit knowing, and hence even explicit knowledge is intrinsically tacit! (Polanyi, 1962),

Knowledge is developed together with others, but not so simplistic as saying that learning involves becoming “...a member of a community of practice through apprenticeship.” (Kolb and Kolb, 2005:200), or as simple as to observe and be part of a practice, as Nonaka (1991:98) seems to believe, but is the result

of the *negotiation of meaning* in a community of practice, by internalizing the experiences of others, *getting a more objective experience*. This negotiated understanding becomes *explicit knowledge*.

When the experiences or the practice in the community is complex, this negotiation of meaning requires *objects as mediators*, as discussed in Philipson and Kjellström (2020). Such knowledge is only what is considered common knowledge, not knowledge in the scientific sense.

#### *Customer choice*

In most cases customer choice is not made on reflected externalized knowledge, but on the sense of satisfaction with the accumulated experiences of offerings from the same company and similar offerings from other companies. These experiences are also *embedded* in the mass of all the individual's experiences. In most cases the decision is not only not made on reflected knowledge, it is not even a conscious process, where these historic experiences are evaluated, but the result of unconscious "intuition". Even in the cases where we consciously reflect whether to buy the offering, it is seldom based on knowledge externalized by interaction with others to find meaning of our knowing.

#### *Industrial buyers' choice*

Investment in machinery and strategic components are often the decision of project teams, in which they externalize their individual tacit knowing (Philipson and Kjellström, 2020). For less strategic components, heuristics are often used for decision-making (Busenitz and Barney, 1997). Such heuristics can be the result of historical organizational learning processes or the intuitional biases of the individual taking the decision. Hence, we hold that there is no qualitative difference between how consumers and industrial buyers make choices. However, the share of decision-making based on rational externalized knowledge is higher in the choice of industrial buyers.

## CONCLUSIONS

- Value is the most fundamental concept in the science of business administration.
- The firm produces an offering, a product or a service. In exchange for this offering, the firm realize an exchange value.
- The offering gives the customer the potential to realize use-value from the offering. This use-value is realized by satisfactory experiences of consuming the offering.
- Sensory cues and emotions at the moment build these experiences.
- Accumulated experiences build tacit knowing, the sense of things and phenomena.
- Knowing is externalized in social processes. These social processes are within one of the many communities of practice, of which we are members.

- Negotiating meaning in those communities of practice makes it possible to build common, or externalized, but not scientific knowledge.
- Our consumption experiences are the sum of the instances of experiences of consumption, extended during shorter or longer time.
- Our decisions to buy an offering are the result of our conscious and unconscious making of those decisions, based on previous experiences and sometimes, but often not, of the reflection on those experiences together with others.

## IMPLICATIONS

Value is the concept that is the foundation of economy, occupying much the same “space” in the understanding of the economy as the atom in chemistry. It is fundamental to understand this concept and its psychological micro-foundations to understand why and how the customer, whether a consumer or an industrial customer, is satisfied during and after the consumption of the product or service. Marketing, innovation, engineering, and production has almost exclusively been occupied with producing or creating the offering, while seldom reflecting on whether the customer can realize the value potentials of it. Such a re-focusing will necessitate radical change in business practices.

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## STRATEGIES TO SURPASS THE LACK OF TOUCH CONSTRAINT ON E-COMMERCE OVERSEAS

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### ABSTRACT

Internet came to help firms enjoy crucial business opportunities, by reducing international barriers associated to internationalization processes. With the trivialization of cross-border e-commerce, consumers can not only buy online but also buy from different foreign markets. However, with this type of selling platform, they will need a higher mental effort to better understand online presented goods due to linguistic and cultural differences, and, even more importantly, the intangibility associated to it. When it comes to products that usually require physical contact to be better perceived it gets even more complicated. That is what happens with experience goods. So, firms must choose wisely how to present these goods in order to gain consumer's trust. Therefore, this work is a literature review work which has the purpose of investigating how to overcome this e-commerce constraint, by collecting and analyzing several points of view of different authors and then understand how these findings should be adapted in an international environment. It was already found in the literature some few strategies that help dealing with consumers' trust issues, such as: clear and fair policy, brand reputation, online sales promotion, written descriptions, multimedia materials, advertisement, good design of the webpage, virtual world, communication, consumer review and feedback, online forms, product trial and unique products. These strategies might, in its own way, help to respond to this constraint, with some external market adaptability.

*Keywords: Cross-border E-commerce, E-commerce, Experience Goods, Intangibility, International Marketing, Internationalization, Internetization, Need for Touch.*

### INTRODUCTION

This work has the purpose of investigating how to overcome the lack of touch constraint inherent to cross-border e-commerce on selling experience goods, alongside with a context of insecurity derived by cultural distance between countries and liability of outsidership. Having this in mind, it seems important to have a more global perception of the inherent problems associated to e-commerce transactions within different markets, in a time that physical contact is being limited. Within this pandemic situation and as an inherent problem of cross-border e-commerce, this lack of touch

constraint may constitute a barrier to sales for companies. For such purpose, some strategies already found in the literature that companies can adopt in order to surpass this actual constraint in the online international environment will be presented.

Nowadays it is known that the Internet has a crucial role in society's dynamics and the number of internet users is growing day by day. People spend so much time connecting to the internet world using websites and social media (Angioni, 2019). In fact, it appears to be useful for the business world, where web channels were transformed to opportunities for global e-commerce (Lawrence and Tar, 2010), creating the cross-border e-commerce. These channels are of high importance in what concerns competitiveness and growth (Angioni, 2019) mostly due to its efficiency and practicality (Lawrence and Tar, 2010). When it comes to a purchase between different countries, there are costs that strongly affect buyers and sellers trust, which will interfere with transactions. As it is highlighted by Valarezo et al. (2018), several authors mention the main barriers for cross-border e-commerce to be little familiarity and trust in the seller, language, need of payment security, costs arising from different currency and cost efficiency of parcel delivery. Compared to two decades ago, today companies have easy access to several digital communication tools that allow them to develop relationships with potential customers all over the world, regardless of company's and customers' location (Angioni, 2019). However, e-commerce also presents limitations, and it is not adequate for all kind of business. In several sectors and, thereby, some products, consumers need to experience goods before they decide to buy them. These are called experience goods, the type of purchase that relies on a direct product experience, where consumers need to feel the product with their senses to understand its attributes (Klein, 1998). The need of touch to analyze the good is the common attribute of these goods. Thus, this kind of products need careful attention when it comes to online sales for foreign markets and this process can become difficult to happen. Therefore, this lack of touch appears as an e-commerce substantial disadvantage (Niranjanamurthy, et al., 2013).

## LITERATURE REVIEW

Companies are getting more internationalized with each passing day in which focusing only on home markets is no longer an option. The internationalization process of a firm occurs when it "increases its commitment and involvement to international markets, on all aspects of its productive activities" (Etemad et al., 2010, p. 320). Also consumers can shop through two types of environments: remote and in-store environments. According to McCabe and Nowlis (2003), on remote environments rely their purchase decision merely on the information provided through the sense of vision. On the other hand, in-store environments are the ones where consumers can touch products and, thereby, use their sense of touch to evaluate their purchase decision. Indeed, throughout the years, the human senses have

progressively been recognized as crucial factors that truly influence consumer's behavior, emotions and perceptions (Rupini and Nandagopal, 2015). That is why analyzing the sense of touch in the purchase intention process is of great importance. Also, e-commerce, as a remote environment, has changed the way of doing business and internet use is considered almost a primary need on these days. The Internet has been seen as an important driver for firms seeking to expand their business overseas (Mostafa et al., 2005). Although it is witnessed a rapid increase in electronic commerce over the last decades, consumers see the Internet as an unsafe purchasing environment compared to in-store methods (Eggert, 2006).

#### *Internetization*

At the beginning of the internationalization process, firms lack precious knowledge about the market they want to enter and face cultural obstacles (Singh et al., 2005). As stated by Loane (2005), some companies need face-to-face interaction with their clients according to the type of product and the sum significance involved in the transaction. Firms face liability of foreignness, which increases when psychic distance increase (Johanson and Vahlne, 2009), which increases the uncertainty and costs of coordination that influence the market choice decision (Singh et al., 2005). Besides, markets cannot be only seen as territories, they are also "networks of relationships in which firms are linked to each other in various, complex and, (...) invisible patterns" (Johanson and Vahlne, 2009, p.1411). Hence, it is crucial for entering firms to be present in relevant networks (Johanson and Vahlne, 2009). When companies face difficulties because they do not have any position in relevant business networks, they are facing liability of outsidership (Johanson and Vahlne, 2009). Internet has a redefining role in facing liability of outsidership. It redefined the current way of doing business in a way that today it is not only affordable to access the Web, but also essential to maintain business activities (Loane, 2005). This internetization concept emerged with the development of internet-based information that enabled the involvement of influential agents crucial to transmit information that capture the initial base for the firm's value creation (Etemad et al., 2010). It has a crucial role in the current state of information intensity and as a communication source (Mostafa et al., 2005). Today, firms can easily and quickly access to knowledge referent to new markets, industry trends or even supplier details (Loane, 2005). Also, the rise of online trade contributes to the decrease of the relevance of geographical distance in what concerns the supply of information (Huang and Chang, 2019). Apart from that, the Internet allows firms to interact with important stakeholders regardless of geographic area which may lower the need for face-to-face interactions (Mostafa et al., 2005). Basically, the Internet can be seen as an "all-embracing global network" (Petersen et al., 2002, p. 208). Accessing to the Web provides firms with several benefits such as reduced importance of economies of scale, lower marketing communication costs, price standardization and reduced time to get quality information (Loane, 2005).

Even though there are no real border barriers to face, the entry into the internetized world may be difficult at the beginning, just like in the real world (Etemad et al., 2010). Angioni (2019) even states that the internet-enabled opportunities will trigger even more internetization which may have become a necessary condition for internationalization of firms (Etemad et al., 2010, p. 339) and Internet may hold the potential of accelerating foreign market expansion (Petersen et al. 2002), providing a new form of international trade, the cross-border e-commerce.

#### *Cross-border e-commerce*

Cross-border e-commerce consists in a new type of international business activity, allowing consumers to buy online from merchants, located in other countries and jurisdictions (CBEC, 2019). Products need to be physically transported between different regulatory systems (Gomez-Herrera et al., 2014), allowing paperless transactions and lowering transaction costs (Hu and Luo, 2018). In traditional foreign trade, commodities must go through several national agents to reach overseas importers, but now with this type of international trade, foreign consumers can directly receive the same domestic commodities (Hu and Luo, 2018) as well as dealing with a different kind of distance. Distance is considered a “proxy for various sources of international trade costs that affect the relative price of domestic and imported goods” (Gomez-Herrera et al., 2014, p. 84) and its effects will vary by product category (Martens, 2013). Factors like trust and value will have a crucial role in determining consumers’ online shopping behavior (Huang and Chang, 2019). Consumers will choose to buy from vendors who offer maximal value, whether they are domestic or foreign vendors (Huang and Chang, 2019). Besides, firms are constantly making efforts to optimize their value creation process in order to match the buyer’s value expectation (Etemad et al., 2010). In fact, when the total purchase cost presented by the foreign website is lower and the availability of the wanted product in the home-country is limited, consumers will prefer to shop on a foreign website (Huang and Chang, 2019). Some authors have found benefits from online purchases, whereas other have found costs and risks throughout the literature. Martens (2013) highlights increased price competition both in online and offline markets, increased variety of supply and the reduction in consumer transaction costs. Huang and Chang (2019) states that price competitiveness and product uniqueness are also perceived benefits. In Gomez-Herrera et al. (2014) study, distance-related trade costs were significantly lowered compared to offline trade, because of information costs’ reduction. Factors like the legal structure and national integrity of a vendor’s country will have influence in consumers’ trust perceptions (Huang and Chang, 2019).

However, consumers still perceive some costs when choosing to purchase online. According to Niranjnamurthy et al. (2013) there is no clear guarantee of the product’s quality and delivery, a proper access to a mobile device is required, time and monetary costs associated to every purchase may be harmful, consumer’s privacy attacks may happen and its resolution is struggled by jurisdictional

aspects, among others. Martens (2013) described the culture-related trade costs, the ones that emerge from linguistic and cultural barriers. Huang and Chang (2019) also suggest three types of costs: communication, waiting and return costs. In the online shopping process, consumers must read and interact with foreign vendors sometimes in an unfamiliar language, decreasing the perceived value and, therefore, the likelihood of purchase (Huang and Chang, 2019). Besides, because of geographical distance, cross-border delivery times are usually longer and the returning process more costly to the customer (Huang and Chang, 2019). In the same way, Gomez-Herrera et al. (2014) confirmed that cross-border e-commerce is still affected by trade costs, because of linguistic market segmentation costs and online payments security concerns. Finally, Singh et al. (2005) explain the importance of host countries' regulatory system. At last, in what concerns e-commerce companies, they face a faster internationalization process compared to traditional firms due to some characteristics. They can share information and knowledge in real-time with both customers and other business units crucial for decision-making process and more efficient flow of products (Singh et al., 2005).

Regarding firm-specific traits, e-commerce firms are usually endowed with innovative capability, marketing capability and previous international experience in the management teams. Thereby, firms are more likely to seize business opportunities, reduce uncertainty and enjoy network connectivity when entering foreign markets. When it comes to foreign countries' technological infrastructure, it is important for a firm to succeed to analyze the market's internetability (actual usage of internet), the technology supportiveness, legal protection and regulatory transparency. With the trivialization of cross-border e-commerce, distance-related trade costs were significantly reduced because information costs and trust frictions were reduced. However, geographical and psychic distances still play an important role in customers' decision processes (Huang and Chang, 2019). All in all, e-commerce companies face lower coordination and communication costs, which explains the faster internationalization process of these firms. On online platforms, buyers will be presented with a variety of foreign goods but they will need more mental effort to understand such goods (Zhu et al., 2019).

#### *Experience goods and need for touch*

In order to evaluate a product and understand if it is intended to be bought, buyers need to spend time searching for information, regardless of the type of product, that can be done through online websites or by in-store environments. Human senses are the ones responsible for this evaluation (Rupini and Nandagopal, 2015). Indeed, most of our purchase decisions are based on emotions, feelings, recalling situations, memories (Bratulescu and Vasilache, 2014), rather than on rationality. Therefore, sensorial experiences in the buying process emerge from the stimulus of our senses that can generate emotions which means that a purchase becomes more than a simple buying process (Schmitt, 1999). Companies should not only consider the consumer's reasoning but also the emotion generated in which the buying

decision will rely on (Schmitt, 1999). That is why it is so important to consider the sense of touch. Besides, the information obtained must be credible for shoppers, in order to give them security when making the purchase decision (Rodrigues and Silva, 2013). When searching on websites, shoppers will be presented with product descriptions, yet some of them need to touch a product to acquire information about it (Peck and Childers, 2003a). These customers need haptic information to analyze objects that is obtained through the sense of touch or transmitted by others by another communication tool (Rodrigues and Silva, 2013), in other words, it is the information retrieved by experiencing the object with our hands.

The need for haptic information to make the purchase decision will vary from consumer to consumer (Peck and Childers, 2003a) because it helps to appreciate the product's quality (González-Benito et al., 2015). This need for touch is defined as a "preference for the extraction and utilization of information obtained through the haptic system" (Peck and Childers, 2003a, p. 431) and it varies from consumer to consumer. So, this need for tactile input gains importance when determining which shopping medium should be used (Citrin et al., 2003). Basically, when consumers require sensory, physical or experimental information about a product, they usually prefer to purchase it through a physical store (Flavián et al., 2017). At the same time, there are products that really require previous experience before being purchased and these are called experience goods (Klein, 1998). Therefore, it is expected that these goods are less prone to be bought through online channels (Rodrigues and Silva, 2013). Besides, as web markets enable immediate access to useful information about products' experience attributes and their prices, consumers can evaluate different experience goods (Peck and Childers, 2003a) and the purchase decision is facilitated (Laroche et al., 2005). However, when facing barriers to touch that inhibit access to haptic information, their confidence will decrease and, consequently, become discouraged to buy online (Peck and Childers, 2003a). Also, when it is impossible to touch, it gets hard for consumers to discriminate among products (San-Martín et al., 2017) and between varying levels of product quality (Grohmann et al., 2007). Customers will construct a less positive evaluation of products since they have less available information (Grohmann et al., 2007). Thus, since buying online does not provide the same product insight when compared to remote environments (Peck and Childers, 2003a), it seems legitimate that the need for touch limits online shopping intentions (Rodrigues and Silva, 2013).

However, there are authors that have other perspectives regarding importance of the sense of touch in the shopping process. González-Benito et al. (2015) conclude that depending on the prominence of tangible attributes in goods, the need for touch may not be essential to its evaluation by customers, yet it can be important when choosing between a set of options available to buy. Also, Yazdanparast and Spears (2013) state that the frustration felt by customers with a high need for touch can be surpassed by a positive mood. Eggert (2006) concludes that factors like consumer's concerns related to its privacy

and security are what highly influence its perception of risk in online shopping, whereas intangibility gains major importance when using traditional methods of shopping. Indeed, e-commerce presents retailing challenges because of its intangible nature which can cause consumers to be uncertain about whether products purchased online will fit their needs (Weathers et al., 2007) and, therefore, complicates the pre-purchase evaluation of goods (Laroche et al., 2005). For that matter, the need for touch might be seen as a constraint to online shopping and, therefore, a business constraint for companies that rely on online channels to profit. Consumers can dislocate themselves and opt to experiment in physical stores to surpass these online restrictions. However, that is not the only concern. Despite the possibility of ordering the product and touching it when it arrives home, buying from foreign markets brings other problems. It must also be taken into consideration the geographic distance, regulatory barriers, linguistic differences and physical delivery costs on the shoppers' decision. After all, in this research, e-commerce intangibility constraint gains even more importance by being associated to an international trade dynamic, which brings more difficulty. Thereby, it is crucial to understand what ways are available to surpass this constraint in the literature.

#### *Ways to surpass*

Some ideas have been discussed in studies about how to overcome this constraint. As stated before, experience goods require a greater depth of search and this search can be enriched by online mechanisms used by vendors to allow consumers to interact with product attributes before purchase (Huang et al., 2009). In physical stores, buyers may opt to try a product when the sense of touch is required to evaluate it, and then, they may opt to buy it online through an online channel. Nonetheless, when it comes to shopping from a foreign company, consumers cannot experiment a good in a physical store, so opting for trying in person first is not an option evaluating solely from an online platform. Likewise, consumers have to get involved in the platform so as to gain trust which is a key factor that determines consumers' online shopping behavior (Huang and Chang, 2019). Although they face uncertainties when buying online, these can be reduced through perceived trust (Zhu et al., 2019) that will develop a higher likelihood of buying (Baker et al., 2019).

All customers want to feel safe when opting for this shopping method and for that reason companies should provide a clear and fair policy in what concerns payment methods (Lian and Yen, 2013) as well as information security (Eggert, 2006). Besides, it has been noticed by Mou et al. (2018) and Dholakia and Zhao (2010) that shipping time has a great impact on consumers' satisfaction, therefore firms should bet on global logistics too (Huang and Chang, 2019). Huang and Chang (2019) also suggest it might be appropriate to consider collaboration with service providers to deal with international payments, deliveries, duties and laws regarding foreign customers. In what concerns the national

integrity of the foreign vendor's country, companies should provide guarantees or consider selling through national agents (Huang and Chang, 2019). Consumers evaluate a good's quality using not only intrinsic cues, but also sing extrinsic cues such as the brand name, reputation, price and quality of the vendor associated to the product (Citrin et al., 2003). The brand represents the signals the firm wants to send to the market about its quality and it gets even more important when physical access is not an option (González-Benito et al., 2015). A strong brand will hence be associated with higher levels of quality, which will provide better assessments by buyers (González-Benito et al., 2015). Customers are getting even more visually sophisticated and are selecting in a more conscious way (influence of the senses), therefore brand strategy built carefully seems a valid way to diminish perceived risk and to communicate trustworthiness (Eggert, 2006). In a remote environment, due to its intangibility, brand planning plays a greater role in the brand's strategy.

Another strategy that can enhance the likelihood of purchasing in this environment is online sales promotions in accordance with Yazdanparast and Spears (2013), Lian and Yen (2013), Huang and Chang (2019) and San-Martín et al. (2017). When it comes to buying expensive products online, the purchase decision must be taken more carefully, since it is a great investment to be made. If there is the possibility to buy with a price discount, some customers may feel more prone to experiment it, since there is a significant perceived risk reduction.

During the shopping process, customers need to spend some time looking and searching for products. It is not different when using online platforms, the more time customers spend searching through the platform and learn how to use it, the more likelihood of purchasing (Zhu et al., 2019). Hence, the decision about how to present the information about products' characteristics and the interaction with the consumer should be revised. To begin with, a product should be described with written information and should include pictures so as consumers can visualize it. When presented with written descriptions describing the product's haptic information, consumers' confidence in product evaluation increase (Peck and Childers, 2003b). In the same way, Zhu et al. (2019) found on their study that a high-quality product description highly influences perceived trust from buyers, by reducing foreignness uncertainty and hence lessen their perceived risk. Rodrigues and Silva (2013) also found that hands-on descriptions next to the product image might enhance companies' sales. Actually, emotional information about the good should be presented firstly followed by the core technical information (Yazdanparast and Spears, 2013), always with clarity (Dholakia and Zhao, 2010). High quality product descriptions contribute to a better consumer perception of the product (Rodrigues and Silva, 2013), enhance trust beliefs towards product providers (Zhu et al., 2019) and further alleviate foreign customers' uncertainty about products and reduce their perceived risk (Zhu et al., 2019).

Notwithstanding the importance of the construction of clear and easy to understand information, sellers should find ways to stimulate shoppers' attention by presenting pictures or videos (Zhu et al., 2019). Pictures were found to reduce performance uncertainty and improve the vividness of information for experience goods (Weathers et al., 2007). Flavián et al. (2017) conclude that when presented with an appealing video, consumers would produce better attitudes toward the product whereas with realistic video, consumers' likelihood of purchasing increased. This is explained by the ease of imagining the product. Moreover, videos can be used to help consumers learn how to buy using online technologies or to teach about product usage (San-Martín et al., 2017; Lian and Yen, 2013). This multimedia materials help to establish a positive image toward buying goods online (Lian and Yen, 2013). It might be advantageous, for firms, as well, to allow product trial before purchase. Offering free product tests can make the experience to be perceived as easier and less risky (San-Martín et al., 2017), and sending fabric swatches might even allow a better quality perception, namely for experience goods (Weathers et al., 2007). Citrin et al. (2003), Lian and Yen (2013) and Laroche et al. (2005) defend offering free trials too. Advertisement is also crucial to diminish perceived risk (Eggert, 2006), so companies should emphasize the experience of the good in order to promote positive feelings in consumers (Yazdanparast and Spears, 2013).

Furthermore, communicate trustworthiness should occur already on the shopper's first interaction with the website (Eggert, 2006), thereby a good design and clear interface may increase consumers' online experience (Dabrynin & Zhang, 2019). The webpage should be detailed and easy to understand (Lian and Yen, 2013), presenting clear information and it must be easy to find what consumers are looking for (Dholakia and Zhao, 2010). Thus, companies should invest in feature-rich websites (Huang et al., 2009) to make the process more appealing. For instance, the use of virtual word as a way to enhance trust during the buying process is gaining popularity, where customers can interact online by experiencing social presence (Baker et al., 2019). However, firms should only invest in this kind of resources if their consumers have familiarity with mixed reality e-commerce (Baker et al., 2019). Besides, communication between shoppers and sellers is fundamental to enhance consumers' involvement (Zhu et al., 2019). Companies should talk to customers, listen to them and provide them with reviews from other consumers' experiences. By establishing online real-time customer services with conversational agents through instant messaging applications and free calls (Lian and Yen, 2013), sellers can communicate with consumers and teach them how to look for and purchase products on the platform (Zhu et al., 2019). Concerning linguistical costs and in order to diminish them, firms should provide multi-language websites and consumer services (Huang and Chang, 2019).

Firms need to listen to customers feedback as well, so that they can increase customer retention rates, increase consumer perception of quality and a positive company image, and therefore build a stronger consumer relationship (Mou et al., 2018). It also allows firms to understand difficulties and barriers for users (Mou et al., 2018) and contribute to a much more accurate product evaluation (Huang et al., 2009). In fact, companies should not only listen to consumers opinions, but should also provide them with the means to access to other buyers' reviews. These third-party evaluations may reduce uncertainty and increase information credibility and must provide negative and positive information (Weathers et al., 2007). At last, providing unique products for foreign buyers that are hard to find in their home country may be a good strategy for cross-border firms as well (Huang and Chang, 2019).

## **IMPLICATIONS**

This study has the major purpose of revising what has already been discussed in the literature about a current constraint of cross-border e-commerce, the lack of touch inherent to these sales. Even though it is not easy, some strategies might be used by companies to promote these online sales within different markets. These presented strategies confirm the importance of promoting trust and security senses in consumers, not to mention the importance of ensuring proximity and confidence on the company, whereby companies should focus their efforts on this kind of measures. By the same token, this study shows some of the problems that companies face from international nature and alert managers of the necessity of rethinking their sales strategies in an online overseas environment with measures related with the promotion of trust: in the product they are selling, in the process of the sell and in the company. More recently, as the world is facing a global pandemic, this characteristic of touch seemed to have gained importance in such times that physical touch is being limited and consumers do not feel comfortable to leave their houses.

## **CONCLUSION**

With the trivialization of cross-border e-commerce, consumers can not only buy online but can also buy from different foreign markets. With this way of doing business, there are still cultural and linguistic costs associated, monetary and time costs and uncertainty regarding guarantees of quality and delivery. Besides, consumers will need a higher mental effort to better understand online presented goods due to linguistic and cultural differences and, more importantly, the intangibility associated to this buying method. Customers will have to evaluate the experience good by only analyzing the information provided on the store's website, that usually require physical contact to be better perceived. This requirement will influence the shopping medium chosen and, therefore, buying online

might be seen as inappropriate for some consumers, since digital platforms usually bring up insecurity and uncertainty to them. So, firms must choose wisely how to adapt their online business to their international activity to build consumer's trust. Some strategies have already been found in the literature, so far, each one being appropriate in its own way to respond to the constraint and with adaptations regarding each market specificities. Ideas such as using a clear and fair policy, betting on brand reputation, online sales promotion, advertisement, virtual world, good design of the webpages, good quality multimedia materials and written descriptions might help dealing with consumer's insecurity. Providing product trials, unique products, and listening and communicating with consumers (online forums, feedbacks, conversations) are prone to help surpassing this constraint, as well.

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# RELATIONSHIP BETWEEN IN-STORE MARKETING AND CONSUMER BEHAVIOUR IN TELECOMMUNICATIONS INDUSTRY AND FMCG RETAILING

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## ABSTRACT

Although the importance of digital channels is emphasized, in-store marketing tools serve as the final step before purchase. Hrvatski Telekom (HT), a market leader in the telecommunications industry and Drogerie markt (dm), a market leader in the FMCG retail industry in Croatia invest a lot into in-store marketing. The purpose of this study was to provide an insight of relationship between in-store marketing and consumer behavior with objectives to explore and underline the importance of in-store marketing in digital world and it's possible influence on consumer buying behavior. A primary research with a study was carried out in Croatia during 2018 on the basis of 200 HT and 300 dm customers. The qualitative research result confirm that in-store materials have a strong influence on customer's perception and behavior. Research findings show that more customers are prone to rather engage with multimedia contents than print. Although it was not proven that higher percentage of sales was made by customers who asked for more info about the offer they engaged with, multimedia contents contribute in creation of additional revenues. It is proven that customers' satisfaction with in-store promoters creates a stronger desire for purchasing and that the level of engagement is higher for customers whose reason of visit is positive, which represents additional contribution of the study.

*Keywords: In-store Marketing, POS Material, Telecommunications, FMCG Retailing, Consumer Behavior*

## INTRODUCTION

The purpose of this study was to provide an insight of relationship between in-store marketing and consumer behavior with objectives to explore and underline the importance of in-store marketing in digital world and it's possible influence on consumer buying behavior. As the birth of mall culture took place in 1950's, in-store marketing becomes the new branch of marketing with high influence on customers (Braun, 2015). In the next decade, advertising and direct mail were the most used marketing

channels (Adams, 2013). In the 1970's, UK companies investing the most in advertising were manufacturers, while today retailers advertise the most (Sullivan et al. 2002). An increase in the level of investments into POS activities can be noticed in the 1980's (Quelch, 2007). Huge amount of marketing expenditures is allocated today to trade promotion activities. Although online channels and online sales rapidly grow, traditional retailing will always retain its primary function. Therefore, retail marketing will remain one of the most important channels for direct communication and creating awareness.

## **IN STORE-MARKETING OVERVIEW AT HRVATSKI TELEKOM (HT) AND DROGERIE MARKT (DM)**

The implementation of retail marketing is especially important in industries such as telecommunications and FMCG retailing. The level of customer's product involvement is high, customers make rational decisions by evaluating criteria such as pricing, features, additional benefits, etc. Customers are less loyal. Usually, the price is not dictating the level of product's quality. Customers are insecure what to buy and the selling concept of marketing plays an important role.

HT, a part of Deutsche Telekom AG is the Croatian market leader in telecommunications industry. It operates since 1999 and has 46 T-Centers within whole of Croatia. Companies in the telecommunications industry invest a lot into in-store marketing. As telecommunication companies are cooperating with mobile phone vendors, they need to provide visibility to them by enabling special corners and positioning with other POS materials. T-Centers are differentiated by the type of concept. The newest concept of T-Centers is called 2020. Those T-Centers are multimedia-oriented. Another type of in-store advertising is window graphics. Big vendors in promotional activities at the different POS. Their core tasks are to welcome customers, ask for their purpose of coming to the store, advise them and assist them while paying the bills. The purpose of POS is not just to sell the goods; it serves as marketing potential where companies create the customer experience, build the image of a brand, and finally drive the sales (Perrey et al. 2012).

Dm, a number one retailer of FMCG, operates in Croatian market with 157 stores. Retailers such as dm should invest in in-store marketing to create awareness. The only implemented type of print content are newsletters with special offers. Multimedia is not implemented. Dm focuses on in-store materials that are positioned next to the products. Mostly used in-store material is shelf wobblers. For specific product categories, dm implements a differentiation of price tags.

## **OBJECTIVES OF THE STUDY**

The goal of this research paper was to determine to what extent does in-store marketing implemented at HT and dm have an impact on consumer's behaviour and perception and to understand importance

of POS materials when consumers need to make decisions. Although the increase in online sales is evident, many consumers choose to purchase at standard POS. One of the research objectives was to analyze engagement of HT customers with all in-store marketing activities, and to understand the impact of it on their behavior. Research paper tends to provide answers to questions about in-store marketing at HT, such as: Do customers, while waiting, like to engage with different types of in-store materials? Does multimedia content influence the customer's decision making? Do standard POS materials such as wobblers help in raising awareness of specific mobile device? How does in-store personal selling affect customer's decision making? Is customer's reason of the visit related to in-store behavior? Does positive sales representative attitude have a positive effect on customers? Regarding FMCG retailing, investments in trade marketing are not as high as in the telecommunications industry. Research paper tempts to provide answers to questions about in-store marketing at dm, such as: Does price tag differentiation enable eye-catching effect on price sensitive customers? Do shelf wobblers enable eye-catching effect on customers? What is the correlation between price of a product and promotion which is communicated through wobblers? How successful is the personal selling that occurs at cash register? The final object of research was to compare the industries and make conclusions accordingly.

## **METHODOLOGY AND RESEARCH FINDINGS**

In the Republic of Croatia, there is no research that analyzes the relationship between in-store marketing and customer behavior in the telecommunications industry and retailing industry selling FMCG products. Besides secondary research, primary research was conducted through field research on a sample of 200 HT consumers (N= 200) and 300 dm customers, (N=300). Primary research could be considered as a quality foundation in making further marketing decisions for the POS of selected industries. The study was carried out in Zagreb, Croatian capital, in the period September – October 2018. Primary research instruments were face-to-face interviews and observation analysis. Research method was qualitative including in-store interviews and store exit interviews. Additionally, online surveys were conducted to analyze the perception of respondents on brand image. The following hypotheses were formulated in order to articulate the objectives of the research:

- (H1): Level of engagement with in-store materials at HT is higher for consumers whose reason for visit has positive purpose
- (H2): Multimedia contents at HT POS are the main sales driver
- (H3): Customers who rate in-store promoter's presentation skills as 'excellent' are more likely to purchase a mobile device
- (H4): Friendly attitude of HT sales representatives is correlated with high level

of customer satisfaction

(H5): dm price sensitive customers better recognize and react to price tag differentiation

(H6): Implementation of shelf wobblers at dm POS proves to be more efficient for promotions which include a monetary benefit

Demographic structure of sample size by gender, age and education level are shown in Table1, Table 2 and Table 3.

| Gender | HT sample size           | dm sample size           |
|--------|--------------------------|--------------------------|
| Male   | 47.50% (95 respondents)  | 35.00% (105 respondents) |
| Female | 52.50% (105 respondents) | 65.00% (195 respondents) |

Table 1: Demographic structure of sample size by gender

| Age group | HT sample size          | dm sample size          |
|-----------|-------------------------|-------------------------|
| 20-29     | 25.50% (51 respondents) | 22.67% (68 respondents) |
| 30-39     | 33.00% (66 respondents) | 31.67% (95 respondents) |
| 40-49     | 22.50% (45 respondents) | 21.00% (63 respondents) |
| 50-59     | 11.50% (23 respondents) | 16.33% (49 respondents) |
| 60+       | 7.50% (15 respondents)  | 8.33% (25 respondents)  |

Table 2: Table 3: Demographic structure of sample sizes by age

| Education     | HT sample size          | dm sample size           |
|---------------|-------------------------|--------------------------|
| Elementary s. | 6.00% (12 respondents)  | 2.00% (6 respondents)    |
| High school   | 27.50% (55 respondents) | 37.00% (111 respondents) |
| Bachelor      | 29.00% (58 respondents) | 25.33% (76 respondents)  |
| Master        | 36.50% (73 respondents) | 32.67% (98 respondents)  |
| Doctorate     | 1.00% (2 respondents)   | 3.00% (9 respondents)    |

Table 3: Demographic structure of sample sizes by education level

## POINT OF SALE OVERVIEW AT HRVATSKI TELEKOM (HT)

In order to understand the impact of different types of POS materials, in-store customer behavior have been observed. In T-Centers, all-together 60 customers interacted with the print content, while 140 customers interacted with the multimedia. Digital contents prove to be more effective. Customers in the age group 50-59 are the group most interested in in-store contents; and 78.26% of them engaged with multimedia. All-together, 40% of customers who interacted with multimedia content asked for additional info about it. Additionally, HT produces co-branded wobblers. All-together 68% of 200 observed customers noticed the wobbler. Personal selling proves to be efficient in creating desire. Out

of 200 customers, 110 of them were able to meet the promoter of one vendor. Results show that 93 customers reacted positively to the promoter's proactive approach. All-together, 49 out of 110 customers rated promoter's presentation skills as 'excellent'. The level of engagement is highly correlated with the customer's reason of visit. The customer's reason of visit does relate to the level of interactivity during waiting time. Companies should also observe sales representative behavior. Out of 71 customers whose reason of visit was negative, 40 of them (56.34%) changed their behavior positively after talking to a sales representative.

## **POINT OF SALE OVERVIEW AT DROGERIE MARKT (DM)**

At dm POS, price tag differentiation is implemented for perfumes. Out of 300 customers, 235 of them browsed the shelf with perfumes. Interestingly, 17% of customers immediately approached to perfumes with red price tags. Most used in-store marketing material at dm of sale is shelf wobblers. All-together 51% of customers started browsing personal care products, paying special attention to shelf wobblers. In total, 29% of customers immediately approached to product with shelf wobblers. At dm point of sale, the level of customer's product involvement is smaller than at HT point of sale. Research results have proven, as stated earlier by Braun during 2015, that in-store marketing becomes the new branch of marketing with high level of possible influence on customers and their behaviour.

## **HYPOTHESIS VALIDATION OVERVIEW**

Veracity of hypotheses H1 to H5 have been examined by using a hypothesis testing of the difference between two samples. A two sample z-test has been used to determine whether the two sample means are equal or unequal. For hypothesis H6, a t-test (paired two sample for means) have been used. Confidence level is 95%, and therefore alpha value ( $\alpha$ ), the probability of making a Type I error, is 5% (0.05).

H1: Validation

- Null hypothesis (Ho):  $\mu_1 - \mu_2 \leq 0$ ; Alternative hypothesis (Ha):  $\mu_1 - \mu_2 > 0$
- Variable 1: customers whose reason of visit has positive purpose; Variable 2: customers whose reason of visit has negative purpose
- $n_1 = 129$ ,  $n_2 = 71$

All-together 60 customers interacted with print contents, while 109 customers interacted with multimedia. Those numbers were divided according to the reason of visit. Each customer in both samples has been marked with an input level. There are three types of input levels: 0 (no engagement

was made), 1 (engagement was made with only one type of content), and 2 (engagement was made with both multimedia and print content). All-together 37 respondents read print content since they consider it as a reliable source of information, 42 of them think that they can find there all needed information and 33 of them consider information very clear and easy to understand. Customers' reasons of engaging with multimedia are mostly related with content, fun and entertaining (69 respondents), eye catching content (84 respondents) and content which has occupied their attention while waiting (103 respondents). Table 4 near here presents the results using z-testing.

|                              | Variable 1 | Variable 2 |
|------------------------------|------------|------------|
| Mean                         | 1.14728682 | 0.29577465 |
| Known Variance               | 0.42345    | 0.325553   |
| Observations                 | 129        | 71         |
| Hypothesized Mean Difference | 0          |            |
| Z                            | 9.59983755 |            |
| P(Z<=z) one-tail             | 0          |            |
| z Critical one-tail          | 1.64485363 |            |
| P(Z<=z) two-tail             | 0          |            |
| z Critical two-tail          | 1.95996398 |            |

Table 4: Determining veracity of H1 using z-testing

For the given variances and means, z value equals 9.59983755, and P-value of one-tail is zero (0). In cases where P-value is lower than alpha ( $\alpha$ ), null hypothesis is rejected. Therefore, there is enough evidence to claim that the level of engagement with in-store materials at HT is higher for customers whose reason of visit has positive purpose.

## H2: Validation

- Null hypothesis (Ho):  $\mu_1 - \mu_2 \leq 0$ ; Alternative hypothesis (Ha):  $\mu_1 - \mu_2 > 0$
- Variable 1: customers who asked for additional information about multimedia content they interacted with; Variable 2: customers who either did not ask for additional information about multimedia content they interacted with, or did not interact with multimedia content
- $n_1 = 85$ ,  $n_2 = 44$

Out of 109 customers who interacted with multimedia contents, 44 customers (40%) asked sales representatives more information. The objective was to prove that higher percentage of sales was made by customers who asked for more information about the advertised offer on multimedia

screens. If null hypothesis proves to be correct, then the statement that multimedia contents at HT POS are the main sales driver is correct as well. Each customer in both samples has been marked with an input level. There are two types of input levels: 0 (no sale was made), and 1 (sale was made). Table 5 represents the results using z-testing.

|                              | Variable 1 | Variable 2 |
|------------------------------|------------|------------|
| Mean                         | 0.56470588 | 0.61363636 |
| Known Variance               | 0.248739   | 0.2426     |
| Observations                 | 85         | 44         |
| Hypothesized Mean Difference | 0          |            |
| Z                            | -0.5326094 |            |
| P(Z<=z) one-tail             | 0.29715199 |            |
| z Critical one-tail          | 1.64485363 |            |
| P(Z<=z) two-tail             | 0.59430398 |            |
| z Critical two-tail          | 1.95996398 |            |

Table 5: Determining the veracity of H2 using z-testing

For the given variances and means, z value equals -0.53526094, and P-value of one-tail is 0.29715199. In cases where P-value is higher than alpha ( $\alpha$ ), null hypothesis is accepted. There is not enough evidence to claim that multimedia contents at HT POS are the main sales driver.

### H3: Validation

- Null hypothesis (H<sub>0</sub>):  $\mu_1 - \mu_2 \leq 0$ ; Alternative hypothesis (H<sub>a</sub>):  $\mu_1 - \mu_2 > 0$
- Variable 1: customers who rated in-store promoter's presentation skills as 'excellent'; Variable 2: customers who rated in-store promoter's presentation skills as either 'very good', 'good', 'poor', or 'very poor'
- $n_1 = 49$ ,  $n_2 = 61$

Out of 110 customers who got an opportunity to meet vendor's promoter, 49 customers (44.55%) rated promoter's presentation skills as 'excellent'. Additionally, customers who rated promoter skills as excellent purchased a mobile device in higher percentage compared with those customers who rated promoter's skills as poor or just as good. Each customer in both samples has been marked with an input level. There were two types of input levels: 0 (not purchasing a mobile device), and 1 (purchasing a mobile device).

|                              | Variable 1 | Variable 2 |
|------------------------------|------------|------------|
| Mean                         | 0.51020408 | 0.3442623  |
| Known Variance               | 0.255102   | 0.229508   |
| Observations                 | 49         | 61         |
| Hypothesized Mean Difference | 0          |            |

|                     |            |  |
|---------------------|------------|--|
| Z                   | 1.7522404  |  |
| P(Z<=z) one-tail    | 0.03986624 |  |
| z Critical one-tail | 1.64485363 |  |
| P(Z<=z) two-tail    | 0.07973248 |  |
| z Critical two-tail | 1.95996398 |  |

Table 6: Determining veracity of H3 using z-testing

For the given variances and means, z value equals 1.7522404, and P-value of one-tail is 0.03986624. In cases where P-value is lower than alpha ( $\alpha$ ), null hypothesis is rejected. There is enough evidence for this hypothesis to be accepted.

#### H4: Validation

- Null hypothesis (Ho):  $\mu_1 - \mu_2 \leq 0$ , Alternative hypothesis (Ha):  $\mu_1 - \mu_2 > 0$
- Variable 1: customers who rated sales representative's attitude as 'friendly'; Variable 2: customers who rated sales representative's attitude as either 'neutral', or 'unfriendly'
- $n_1 = 71$ ,  $n_2 = 58$

Customers with positive reason of visit were asked to evaluate sales representative's attitude. All-together 71 of them rated it as 'friendly'. Customers were also asked to evaluate the overall customer service. All-together, 56 customers rated it as 'very satisfactory'. Each customer in both samples was marked with an input level. Input levels were grades for evaluating overall customer service: 5 (very satisfactory), 4 (satisfactory), 3 (neutral), 2 (unsatisfactory), and 1 (very unsatisfactory). Table 7 near here presents the results using z-testing.

|                              | Variable 1  | Variable 2  |
|------------------------------|-------------|-------------|
| Mean                         | 4.422535211 | 3.948275862 |
| Known Variance               | 0.504628    | 0.6464      |
| Observations                 | 71          | 58          |
| Hypothesized Mean Difference | 0           |             |
| Z                            | 3.510407451 |             |
| P(Z<=z) one-tail             | 0.00022371  |             |
| z Critical one-tail          | 1.644853627 |             |
| P(Z<=z) two-tail             | 0.000447421 |             |
| z Critical two-tail          | 1.959963985 |             |

Table 7: Determining veracity of H4 using z-testing

For the given variances and means, z value equals 3.510407451, and P-value of one-tail is 0.00022371. In cases where P-value is lower than alpha ( $\alpha$ ), null hypothesis is rejected. Therefore, there is enough evidence for this hypothesis to be accepted.

#### H5: Validation

- Null hypothesis (Ho):  $\mu_1 - \mu_2 \leq 0$ , Alternative hypothesis (Ha):  $\mu_1 - \mu_2 > 0$
- Variable 1: customers who are price sensitive when buying a perfume; Variable 2: customers who are price insensitive when buying a perfume
- $n_1 = 136$ ,  $n_2 = 99$

All-together 58% of customers who browsed the shelf with perfumes were price sensitive, while the remaining 42% do not consider price being a limiting factor. Each customer in both samples has been marked with an input level. There are two types of input levels: 0 (not recognized red price tags), and 1 (recognized red price tags).

Table 8 near here presents the results using z-testing.

|                              | Variable 1  | Variable 2  |
|------------------------------|-------------|-------------|
| Mean                         | 0.669117647 | 0.373737374 |
| Known Variance               | 0.223039    | 0.236446    |
| Observations                 | 136         | 99          |
| Hypothesized Mean Difference | 0           |             |
| Z                            | 4.653917067 |             |
| P(Z<=z) one-tail             | 0.00000163  |             |
| z Critical one-tail          | 1.644853627 |             |
| P(Z<=z) two-tail             | 0.00000326  |             |
| z Critical two-tail          | 1.959963985 |             |

Table 8: Determining veracity of H5 using z-testing

For the given variances and means, z value equals 4.653917067, and P-value of one-tail is 0.00000163. In cases where P-value is lower than alpha ( $\alpha$ ), null hypothesis is rejected. There is enough evidence for this hypothesis to be accepted.

#### H6: Validation

- Null hypothesis (Ho):  $\mu_d = 0$ , Alternative hypothesis (Ha):  $\mu_d \neq 0$
- Variable 1: customers evaluating L'Oréal's offer; Variable 2: customers evaluating Dove's offer
- $n = 212$

Customer evaluated both Dove and L'Oréal offer demonstrating later their purchase intentions before and after becoming aware of the special offer. Only 10 customers intended to buy a L'Oréal product,

while 82 customers intended to buy a Dove product. After becoming aware of the offers, 122 customers were intrigued about the L'Oréal offer, while 105 customers were interested about the Dove offer. In order to correctly determine the veracity of this hypothesis, grades used for evaluating the offers on a scale from one (1) to five (5) were the inputs for both variables. For this hypothesis, t-testing is used to determine if there is any difference between the variables. Table 9 near here presents the results using z-testing.

|                              | Variable 1  | Variable 2  |
|------------------------------|-------------|-------------|
| Mean                         | 4,528301887 | 4,264150943 |
| Variance                     | 0,411517482 | 0,546007333 |
| Observations                 | 212         | 212         |
| Pearson Correlation          | 0,514061169 |             |
| Hypothesized Mean Difference | 0           |             |
| Degree of freedom (df)       | 211         |             |
| t Stat                       | 5,609045566 |             |
| P(T<=t) one-tail             | 3,17E-08    |             |
| t Critical one-tail          | 1,652107286 |             |
| P(T<=t) two-tail             | 6,33837E-08 |             |
| t Critical two-tail          | 1,971270646 |             |

Table 9: Determining veracity of H6 using z-testing

For the given variances and means, t value equals 5.609045566, and P-value of one-tail is 0.0000000317. In cases where P-value is lower than alpha ( $\alpha$ ), null hypothesis is rejected. There is enough evidence for this hypothesis to be accepted.

## CONCLUSION AND IMPLICATIONS

HT as a market leader in the telecommunication industry implement many different in-store contents. The company is emphasizing digital trends and focuses on multimedia. Research results show that more customers are prone to rather engage with multimedia contents than print. Although it was not proven that higher percentage of sales was made by customers who asked for more info about the offer they engaged with, multimedia contents contribute in creating additional revenues. It is proven that customers' satisfaction with in-store promoters creates a stronger desire for purchasing and that the level of engagement is higher for customers whose reason of visit is positive. Friendly attitude of sales representative can positively affect customer's attitude and is highly correlated with customers' satisfaction with the overall service. Dm is the customers' most favorite place to do shopping of FMCG. Although the level of investment in in-store marketing activities is not as high as in the telecommunications industry, dm implements special techniques that enable differentiation and

customization. It is proven that dm customers who are price sensitive better recognize and react to price tag differentiation and that implementation of shelf wobblers at dm POS is more efficient for promotions which include a monetary benefit. Although online communication and digital marketing rapidly grow, research findings show that traditional retailing will retain its primary function. Therefore, retail marketing will remain one of the most important channels for direct communication and creating awareness among customers in telecommunication and FMCG industry.

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## **“M&A VERSUS ALLIANCE” DECISIONS: INSIGHTS FROM THE THIRD-PARTY LOGISTICS INDUSTRY**

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### **ABSTRACT**

Mergers and acquisitions (M&As) and alliances are potential alternative choices for managers, which involve balancing several dimensions, and that only rarely have been compared as substitutes.

The present paper attempts to advance knowledge in the understanding of such firms' external strategy implementation paths. In particular, it aims to develop a model for interpreting the drivers of such decisions, based on (1) the level of riskiness and complexity of the industry, (2) the criticality of the acquired re-sources and competencies for the competitive advantage of the acquiring firm.

The theoretical model is then applied to the third-party logistics industry through a qualitative analysis on four case studies: DHL Supply Chain & Global Forwarding, DB Schenker, CH Robinson, XPO Logistics. The third-party logistics industry is indeed an ideal set for studying such issues as, in the last few years, it has undergone significant changes which have increased the number of M&A and strategic alliances.

The results show that, in the third-party logistics industry, the two aforementioned dimensions are indeed important in firms' choice between M&As and alliances, highlighting the presence of homogeneous behavioral models among logistics services providers. This contribution presents some valuable research implications, useful for researchers and academics, but also professionals and policy makers may benefit from this knowledge.

*Keywords: M&A, alliance, third-party logistics industry.*

### **INTRODUCTION**

The present paper tries to investigate the drivers of logistics service providers' strategy implementation, focusing on mergers and acquisitions (M&As) and alliances as potential alternative choices for managers, with the aim of addressing what are the factors which push a company towards M&As on one side or alliances on the other side. The choice between alliances or acquisition has been a strategic challenge to managers and scholars since no optimal rule of selection between the two options has been set so far (Dyer et al., 2004) and the logistics industry is an ideal set for studying such issues.

Third-party logistics (3PLs) companies, a common definition for service logistics providers, are experiencing significant challenges in recent years due to growing competition and changing customer expectations towards interconnected high-standard services at low cost (Kiesel *et al.*, 2017). Globalization, lead time reductions, and customer orientation are only some of the major changes impacting on this industry: as the role of logistics providers has changed both in content and in complexity and the amount of successful factors is subject to growth and development (Ab Talib *et al.*, 2015). Critical success factors of supply chain management: a literature survey and Pareto analysis. EuroMed Journal of Business., new firms from different fields entered the market competing with the traditional transport and warehousing firms (Hertz and Alfredsson, 2003).

The situation has become even more complex with the emergence of the financial crisis: in the years after the crisis, logistics services providers have faced a high competitive pressure due to the constant decline in international trade (Deutsche Bank, 2016) and also the digitization process has created new challenges due to changing customer expectations.

To cope with these disruptions, many companies began to search for external growth to realize operational efficiencies and exploit productive opportunities of new markets and diversified services (Kiesel *et al.*, 2017). Such growth has been achieved by different strategic paths.

On one hand, the increasing turbulent environment has forced logistics operators towards a constant growth of the number of M&As (accordingly to Kiesel *et al.* (2017), 2015 became the most active year for M&A in logistic service industry) that lead to a major level of industry concentration; on the other hand, logistics service providers have been involved in several strategic alliances with other partners belonging to the same supply chain (vertical) or competitors (horizontal).

Vertical logistics alliances have emerged as a response to the increasing out-sourcing of logistics functions to 3PLs in the '80, and since then, vertical alliances among supply chain actors, such as manufacturers, suppliers, retailers and customers and 3PLs, have become more and more important (Crujissenet *et al.*, 2007; Daugherty, 2011). They cover 'long-term formal or informal relationships between shippers and 3PLs to render all or a considerable number of logistics activities' (Bagchi and Virum, 1998), or, in other words, a comprehensive partnership arrangement including a broad, or a complete, range of products and services.

Moreover, over the last decades, horizontal alliances between logistics service providers have become a well-established organizational form and their use is expected to grow even further in the future (Raue and Wieland, 2015).

So far, no studies have focused on the drivers of the choice between M&As and alliances and therefore our aim is to answer to the following research question:

RQ: Which are the antecedents of firms' choice between mergers and acquisitions (M&As) and alliances?

More specifically, we propose a model for interpreting the drivers of such decisions based on two dimensions: (1) the level of riskiness and complexity of the industry, (2) the criticality of the acquired resources and capabilities for the competitive advantage of the acquiring firm.

The theoretical model is then applied to the third-party logistics industry, through a qualitative analysis on four case studies, focused on their M&As and alliances.

In seeking to answer to the aforementioned research question, the present study contributes to extant academic literature in several ways. It develops logistics management literature by exploring the strategic motivations of mergers and acquisitions (M&As) and alliances implemented by 3PL companies. Moreover, the manuscript extends the strategic management literature developing an overall conceptual framework on the antecedents of the choice between M&As and alliances. In fact, while alliances and M&As are typically considered to be alternative choices for firms interested in combining their resources (Wang and Zajac, 2007), relatively little is known as to when firms should pursue one vs. the other (Profumo, 2017). The proposed model could also be applied to other industries, in order to test its validity. The study has also several valuable implications for both managers and policy makers.

## **LITERATURE REVIEW: THE DRIVERS OF EXTERNAL GROWTH STRATEGIES**

The success and value creation of firms' corporate strategies deeply depend on the implementation paths chosen by managers. That's why a wide international literature belonging to economic, legal, financial, and managerial backgrounds has already developed on the theme (Jensen and Ruback, 1983; Shleifer and Vishny, 1988; Seth, 1990; Rozen-Bakher, 2018).

A thorough analysis of the strategic management literature highlights the scarcity and fragmentation of comparative studies aiming at understanding the drivers inducing a company to choose among the different external growth modes and, specifically, between M&As on one side, and alliances on the other (Hennart and Reddy, 1997; Garette and Dussauge, 2000; Wang and Zajac, 2007; Yin and Shanley, 2008; Profumo, 2017; Mellewigt *et al.*, 2017; Penco and Profumo, 2019). Prior research has, in fact, specialized on one instrument but not the other and only few studies have considered the two growth modes interchangeable (Wang and Zajac, 2007; Mellewigt *et al.*, 2017).

In the choice between internal and external growth strategies, "time" and "complexity" represent the key drivers. If a quick action is essential to gain a competitive advantage, the external growth strategy implementation will be preferred to the too slow process represented by the endogenous development.

On the contrary, the drivers relevant to the choice among the different external growth strategies have not come out clearly yet. According to the resource dependence theory and the transaction cost theory, Yin and Shanley (2008) identified in the trade-off between commitment and flexibility the choice between M&As and alliances. Hence, in the most unstable and risky businesses, it is likely the demand of flexibility to prevail, thus preferring collaborative forms of growth, whilst in businesses where large investments are required – e.g. to exploit economies of scale and of scope – the commitment will be chosen thus favoring more stable forms of partnerships.

By focusing their attention on the resources and capabilities of the enterprises involved in the growth process and using the resource-based view of the firm, Wang and Zajac (2007) remarked that the more resource similarities and expertise between the companies present, the more they will tend to choose M&As rather than alliances; on the contrary, high levels of resource complementarity of two firms are more likely to trigger companies to choose alliances rather than M&As. Mellewigt *et al.* (2017), instead, found that partner-specific trust pulls towards alliances, while value certainty pulls towards acquisitions.

By analyzing the investments of the Japanese firms in the United States, Hennart and Reddy (1997) inferred that joint ventures are preferred when the targeted assets are strictly linked to unneeded assets, thus making M&A less “digestible”. They also showed that the greater the enterprise knowledge of the new business market, the higher will be its proclivity to plan M&As rather than collaborative relationships. Vanhaverbeke *et al.* (2002) reported, instead, that prior knowledge developed with alliances between two companies increases the probability of M&As.

On the other hand, Penco and Profumo (2019) highlighted that the implementing logic discriminants of the corporate strategies are triggered by the importance of the acquired resources and capabilities for winning the competitive game as well as on the business risk and complexity degree of the industry.

Following the proposals of Yin and Shanley (2008) and Penco and Profumo (2019), an interpretive model of the external growth strategies should be based on these two variables: (1) riskiness and complexity of the business in which the firm is operating, or would like to operate, (2) the criticality of the target resources and capabilities for the competitive advantage of the acquiring firm (Figure 1).

The acquisition of control rights implies greater risks for companies compared to alliances due to its lack of flexibility and reversibility, but it also enables the total control and the resource exploitation of the acquired entity (Yin and Shanley, 2008).

On the other side, when the environmental complexity and the risk level of the industries in which the firm wants to invest, are sharpening, the firm will tend to seek collaborative forms of growth in order to share the risk incurred (risk sharing) and to curb the resources and expertise assigned to its growth. From this view-point, the risk level could also increase with the raise of the transaction costs, including

those related to the lack of knowledge of the market in which the firms want to grow, as already pointed out by Balakrishnan and Koza (1993).

|                                       |      |  |     |   |
|---------------------------------------|------|--|-----|---|
| Risk Level and<br>Business Complexity | High | Non-Equity<br>Agreements<br>Alliances<br>(B) | and | Equity Agreements<br>and Alliances<br>(C) |
|                                       | Low  | Market Transactions<br>(A)                   |     | M&A<br>(D)                                |
|                                       |      | Low  |     | High                                      |

Resource criticality to gain the competitive advantage

Figure 19. The implementation of the external growth strategies.

The quadrant (A) features low business complexity, low risk levels and limited criticality of the new resources and capabilities to attain the competitive advantage. In this case, the external growth involves low complex and low risk businesses, where no destabilizing variables emerged over the time. When the target industry identified by the firm for its growth, is not so risky and complex due to previous knowledge or similarity to the firm original business activity, less transaction costs from market imperfections are likely to emerge; if the assets are not mainly firm-specific, no significant advantages will derive in adopting M&A and agreements, or alliances, in comparison to mere market transactions which are less expensive. Therefore, according to the proposal of Yin and Shanley (2008), it is possible to postulate that, in this quadrant, the growth is implemented through market transactions, which enable faster target achievements with little financial outlays.

In the quadrant (C), the business risk and complexity levels are high and the acquired resources and capabilities are challenging. This quadrant is, definitely, the most complex to understand, since the two axes highlight opposite trends.

On the one hand, the high complexity and risk level of the business chosen by the growing firm leads to employ collaborative arrangements aiming at limiting risks and invested resources. This could be the case when the new industries are very “distant” from the starting one. But, on the other hand, the criticality of the new resources, capabilities and knowledge seems to push towards solutions with a higher degree of control.

Hence, this quadrant shows external growth modes based on collaborative arrangements with higher control levels, such as equity agreements (for example, joint ventures). In industries very different from the original one, resulting from vertical integration strategies or diversification, or in case of entry in new geo-geographical markets of the same industry far (in terms of knowledge) from home markets, such

growth modes allow to better face the risk among the partners and, at the same time, to exercise some control by taking part in risk capital.

The two dimensions shown in the quadrants (B) and (D) are highlighting opposite levels thus being more easily understood. In the first case, the high risk and complexity level of the industry is offset by the lower importance of the control on the resources and capabilities. In these cases, the non-equity alliances seem to be more suitable to the purpose, since they do not need the full control on the new resources and capabilities.

On the contrary, the quadrant (D) features a low level of business risk and un-certainty against a high degree of criticality of the resources and capabilities for the competitive advantage of the acquiring company. In this case, growth should be implemented through merger and acquisition operations since target industries seem “known” by the firms, developing low transaction costs, and the full control of the new resources and knowledge is crucial to achieve competitive advantages. Therefore, market transactions are not advantageous. We can locate in this quadrant the M&A transactions aiming at increase firm’s market share in the same industry and attaining collusive synergies.

## METHODOLOGY

Case studies are particularly useful when the topic of the research is the understanding of complex phenomena (Yin, 1994). The case study design adopted in this manuscript may be described as a multiple case study (Eisenhardt, 1989; Yin, 1994). Multiple case designs are, in fact, appropriate when a researcher wants to achieve a deep understanding of a specific multidimensional complex phenomenon, such as corporate strategies and their implementation paths, going beneath the surface of a situation and using a replication strategy (Eisenhardt, 1989).

The chosen cases regard four of the major 3PLs companies, belonging to the first ten ranking positions of the “Top 50 Global Third-Party Logistics Providers (3PLs) List” released by Armstrong & Associated and that have implemented an intense wave of M&As and alliances in the last few years (Table 1): DHL Supply Chain & Global Forwarding (position 1 in the global ranking), DB Schenker (ranked third), CH Robinson (ranked fifth), XPO Logistics (ranked seventh).

| Company       | 2018 Revenues (US\$ billion) | Gross Countries | Headquarters | Parent Company |
|---------------|------------------------------|-----------------|--------------|----------------|
| DHL SC & GF   | 28.1                         | 220             | Germany      | Deutsche Post  |
| DB Schenker   | 19.9                         | 125             | Germany      | Deutsche Bahn  |
| C.H. Robinson | 16.6                         | 80              | USA (MN)     | -              |
| XPO Logistics | 17.3                         | 30              | USA (CT)     | -              |

Table 1: Key data of the four selected companies (Armstrong & Associated, 2020, Corporate’s

websites, 2020).

The focus on the third-party logistics industry is related to the fact that it is a very heterogeneous industry (Spinelli and Scarsi, 2017) that is moving towards a progressive concentration and services differentiation at the top. In the last twenty years, many M&A operations have been registered, involving almost all the top global 3PLs. Also cooperation has grown in importance and today more than half of 3PLs are engaged in one or multiple alliances with other 3PLs (Raue and Wieland, 2015).

In order to develop the cases, we collected heterogeneous data exploring different topics:

- The principal features of the different companies and their businesses;
- The evolution of their corporate strategies;
- Number, typologies and characteristics of M&As and alliances of each company;
- The motivations behind the different strategy implementation instruments (M&A and alliance) used by the companies.

For analyzing all the previous topics, the authors have collected all the necessary data, using multiple data collection techniques:

- analysis of the Capital IQ Standards & Poor Database for gathering information on M&As, alliances (equity and non-equity) and partnerships developed in the last 15 years (2004-2019). As regards M&As, such database has been integrated with the "3PL Mergers & Acquisitions Tracking List" of Armstrong & Associated for completeness.
- analysis of several secondary sources for each operation (M&A and alliance) identified from the database. In particular: company's press releases, company's web sites, investor presentations, Annual Reports, articles from magazines and newspapers;
- personal semi-structured interviews with two consultants, experts of the 3PL industry on the trends of the industry and on the perceived drivers of external growth.

The case studies were built from data gathered from primary and secondary sources and were written independently of each other, to maintain the independence of the replication logic Spiggle (1994). The interviews' data have been integrated with information from secondary sources to provide further background and help to triangulate the data. Guided by our theoretical framework, we then built the insights emerging from the case studies.

## **M&AS AND ALLIANCES IN THE THIRD-PARTY LOGISTICS INDUSTRY: THE RESULTS OF FOUR CASE STUDIES**

### *DHL Supply Chain & Global Forwarding*

DHL Supply Chain & Global Forwarding, a division of Deutsche Post, with an annual gross revenue around 30 billion US\$, is the first 3PL in the world ranking.

DHL Supply Chain & Global Forwarding is indeed the result of a progressive series of acquisitions that led to a quantitative and qualitative growth of the original company. After acquiring the full ownership in 2002, Deutsche Post began the process of repositioning of DHL, at that time an express courier. The parent company entered the 3PLs industry with the acquisition in 1999 of the Swiss logistics provider Danzas, one of the world leading logistics companies. In 2003, the entire express business (formerly DHL) and logistics business (formerly Danzas) were bundled under the DHL brand, thus declaring the top role of the group in the logistics industry. In 2005, Deutsche Post was the author of the main M&A operation ever happened so far in the 3PLs industry: it acquired the U.K. based company Exel, at that time the world second major 3PL. Over the years, the company made other acquisitions in order to establish or expanding its roots in new markets (we can insert these operations in the quadrant D of Figure 1): Europe (Nedlloyd Logistics, 1999; MIT Safetrans, 2016), USA (Air Express International, 2000; Airborne Express, 2003), India (Blue Dart Express, 2005), Latin America (Suppla Group, 2018).

In the meanwhile, the company established a series of strategic alliances with other companies operating in the freight forwarding and logistics industries (Easyship Fulfillment Serviced, Empost, S.F. Holding Co., Sinotrans, Trade Shipper Cargo, etc.), transport management (China Airlines, Lufthansa Cargo, AirAsia Group Berhad, Emirates SkyCargo, Ethiopian Airlines, Fukuyama Transporting Co., Interstate Transport, Inc., etc.), facilities management (Airport Authority Hong Kong), IT management (Coehalo Inc., Cybits Holding, Huawei Investment & Holding Co., Quadient, AT&T Inc., BT Group, SAP, etc.), thus implementing its offered services and its global network.

In some cases, these alliances are formalized and involve equity participations, thus positioning in quadrant C Figure 1, including collaborative agreements characterized by high control level due to the combination of high risk (e.g. new markets) and challenging resources and capabilities. We can for example cite the joint venture DHL-Ethiopian Airlines Logistics Services Limited signed between DHL Supply Chain & Global Forwarding and Ethiopian Airlines (July 2018). The aim of the partnership was to become a leading cargo logistics provider in Africa.

Other alliances assumed a less structured form, thus not concerning very critical resources and capabilities to be acquired (quadrant B Figure 1). We can cite among these the memorandum of understanding signed between DHL Supply Chain & Global Forwarding and the Project Office OTLK LLC (comprehending Russian Railways, Kazakhstan Temir Joly/ Kazakhstan Railways and Belarusian Railways), in March 2014. According to the memorandum, the parties agreed to be-come strategic partners in order to develop jointly railway routes between China - Europe - China and provide door-to-door container shipping services.

*DB Schenker*

With a gross revenue of around 20,000 million US\$, DB Schenker is currently the third world 3PL. Schenker has a story of about 150 years: it was born in Austria in 1872 as a freight forwarder and, in 1931, it was acquired by Deutsche Bahn, the German public rail company.

In 2002, Deutsche Bahn acquired the control of Stinnes (formerly Schenker) and renamed the business unit DB Schenker. In 2006, Deutsche Bahn considerably strengthened its position in the global logistics market with the acquisition of the American 3PL BAX Global (quadrant D Figure 1). The expansion process through new markets was carried out by other acquisitions (Transportes Ferroviarios Especiales, 2007; English Welsh & Scottish Railway Holding, 2007; Romtrans, 2009) and alliances (implying in some cases proprietary relationships) with foreign operators (Seino Holdings Co., Japan; Joyau, France; Spedpol, Po-land; Linjegods, Norway; Spain-TIR, Spain; Khimji Ramdas, Oman; DSB, Den-mark; Public Joint Stock Company TransContainer, Russia).

As regards alliances, most of them were oriented to provide value-added services, completing the range of offered services: in 2009, for example, Schenker Of Canada Limited announced its business partnership with NowPac Inc.-one of Canada's leading providers of co-packing, display design and build, and product conversion. The partnership was focused on providing value-added services to both existing and new customers across Canada (quadrant B Figure 1).

Specifically referring to the DB Schenker commitment on IT research, we can cite the joint venture between the company, MAN Truck & Bus and Hochschule Fresenius: it began in 2017 with the aim to develop networked and autonomous driving in transport logistics. The project sees for the first time a logistics provider and a vehicle manufacturer cooperating to develop networked truck convoys to use in the logistics business. In this case, the high risk (new technology) and the mix and criticality of the required resources and capabilities led to the choice of an equity agreement (quadrant C Figure 1).

#### *C.H. Robinson*

C.H. Robinson is the 3PLs industry leader in the USA and number five in the world ranking (Armstrong & Associated, 2020, data referred to 2018). The company has a long tradition; it was born in the early '90s as a wholesale brokerage house. The company progressively became a leader in freight transportation, supply chain logistics, and outsourcing. The development pattern of C.H. Robinson is characterized by the coupling of a continuous and progressive internal growth with a long series of acquisitions. The peculiarity consists in an acquisition plan spread over a long period of time (20 acquisitions over 22 years) and involving quite small target companies (the total purchase price is around 1,600 million US\$), so that the path was particularly linear and "digestible" and did not impact too much on the company's profitability, but permit to the company to reach a leadership position (quadrant D Figure 1).

The more expensive acquisition operated by C.H. Robinson refers to Phoenix International (2012, 635 million US\$), a privately-held international freight forwarder providing international freight forwarding services, including ocean, air, and customs brokerage, and Freightquote.com (2015, 365 million US\$), one of the largest internet-based freight brokers in the United States, providing truckload, less than truckload and intermodal services. The main part of the acquisitions (with some exceptions) refers to other USA companies, but C.H. Robinson progressively improved its global presence by opening several offices in Canada, South America, Europe, China, and India. The Oceania market was reached through the acquisition, after a long-standing exclusive agent relationship, of APC Logistics, the largest independently owned freight forwarding and customs brokerage services provider in Australia and New Zealand (2016, purchase price 225 million US\$).

The company does not seem to be part of any strategic horizontal alliance.

#### *XPO Logistics*

XPO Logistics is a quite young company. Born in 1989 in the USA, after a long series of acquisitions, it achieved five years ago the top twenty 3PLs ranking, reaching number seven world position in 2018 and number two in the USA.

It was born as a freight forwarder, with a high specialization in high value/ urgent freights. It was acquired in 2011 by the businessperson Bradley Jacobs, re-named XPO Logistics and listed on the New York Stock Exchange. From 2012 to 2015, XPO Logistics acquired 17 companies, for a total purchase price of over 8 billion US\$.

The main acquisitions refer to market leaders, with primary operating areas in either North America or Europe. In particular, in 2013, XPO acquired 3PD, a North America based 3PL specialized in heavy goods logistics for 375 million US\$. In 2014, it acquired Pacer International, a major provider of intermodal services in USA, Canada and Mexico, for 335 million US\$. In 2014, it acquired for 615 million US\$, New Breed Holding Company, a North American company providing, through its subsidiaries, warehousing distribution, transportation and supply chain management, aftermarket, and manufacturing support services, visibility, control, freight, and management logistics system services. In 2015, XPO strongly reinforced its presence in the European market by acquiring for 3,530 million US\$ Norbert Dentressangle (France), a major European transport, logistics and freight forwarder. In 2015, XPO also acquired, for 3,500 million US\$, Conway which was at that time the second largest less-than-truckload transport provider in North America, confirming its willingness to increase its leadership in the market (quadrant D Figure 1).

The company does not seem to be part of any strategic horizontal alliance. As regards vertical alliances, we can report the use of cooperation as a way to improve its capabilities and/or test new risky services/ technologies (quadrant B figure 1). E.g., in June 2018 XPO Logistics agreed with Nestle to jointly build a

638,000-square-foot distribution centre at the new SEGRO East Midlands Gateway Logistics Park in Leicestershire, UK. The facility would be predominantly used by Nestlè for its consumer packaged goods, but would also serve as a testbed environment for XPO technology prototypes prior to global release. The site features advanced sorting systems and robotics alongside automation co-developed with Swisslog Logistics Automation to ensure faster and efficient distribution.

**DISCUSSION**

The analysis of the four case studies showed that, in the choice between M&As and alliances, the proposed interpretative model on the logics of the external growth strategies could be useful for responding to our research question on the antecedents of firms’ choice between M&As and alliances.

Figure 2 shows the original model in which the main strategic drivers of the 3PLs companies are marked.

The majority of acquisitions made by the companies were of horizontal nature and helped expansion purposes in terms of geography and market positioning, as already highlighted by Kiesel et al. (2017).

These growth paths may be placed in the (D) quadrant of the model and respond to the general driver “Seeking market leadership” (Penco and Profumo, 2019). M&A processes have been central to obtaining competitive advantage for the four companies whose purpose is attaining a global leadership, eliminating a current competitor.

|   |   |
|---|---|
| Non-Equity Agreements and Alliances (B)<br><br>Completing the range of offered services   | Equity Agreements and Alliances (C)<br><br>Acquiring control of critical resources in new risky markets |
| Market Transactions (A)<br><br>Exploiting market conditions and negotiating power to acquire non-critical and non-risky resources | M&A (D)<br><br>Seeking market leadership (collusive synergies)  |
| Low <span style="margin-left: 200px;">High</span><br><br>Resource criticality to gain the competitive advantage                   |   |

Figure 2. 3PLs companies’ implementation of external growth strategies.

The activities into which the service logistics providers have expanded are “well-known” because they belong to the same business and therefore do not present very high levels of risk or complexity. On the

other hand, the full control of resources and capabilities has been fundamental for reaching collusive synergies (Garette and Dussauge, 2000).

In the last few years, the importance of alliances has emerged. Equity agreements have been used for entering new markets characterized by high risk (e.g. developing countries) with challenging resources and capabilities, critical for attaining the competitive advantage. Such alliances, in particular joint ventures, can be placed in the (C) quadrant of the model (“Acquiring control of critical resources in new risky markets”).

When activities that companies want to control are both complex and critical for competitive advantage, 3PLs companies often opted for equity alliances, that sometimes led to vertical M&As (D quadrant). This is the case of IT research for developing networked and autonomous driving in transport logistics, which DB Schenker wants to control for future competitive advantage.

The collaborative mode which is based on “strong” equity control is more flexible than M&As, especially in order to better explore new unknown geographical markets (Carbone and Stone, 2005), that are more complex and risky to interpret, sometimes with completely different cultures, such as Ethiopia (DHL Supply Chain & Global Forwarding). In these cases, the regulatory and operational support of the local firm is an essential and complementary competence for entering the markets which are considered critical for the companies (Wang and Zajac, 2007).

When the resources and capabilities to be attained are not particularly critical for the competitive advantage of the acquiring company, and the new industries are unfamiliar and “distant” from the service logistics core business, 3PLs firms seem to use collaborative forms of non-equity growth as shown in the B quadrant, in particular related to the driver “Completing the range of offered services”. Following the results of Penco and Profumo (2019), 3PLs companies tend to use such form of alliance for providing value-added services with a complete range of logistics services. This is the case of the collaboration between DB Schenker (Canada) and the Canadian leading providers of co-packing and display design.

In relation to the (A) quadrant, considering the complex articulation of the logistic services, companies make abundant use of market transactions. Such transactions are used when 3PLs companies are dealing with low market complexity, and resources and capabilities held by partners are not critical for the competitive advantage.

## CONCLUSION AND IMPLICATIONS

This paper aimed at contributing to the existing knowledge on the drivers of logistics service providers’ strategy implementation, focusing on M&As and alliances as alternative choices for managers. We addressed, in particular, four case studies, related to some of the major logistics service providers

operating at an international level and which have implemented an intense wave of M&As and alliances in the last few years.

From a theoretical standpoint, our paper contributes to existing literature in several ways. It extends the strategic management literature developing a conceptual model of the drivers of the choice between M&As and alliances. In fact, while alliances and M&As are typically considered alternative choices for firms interested in combining their resources (Wang and Zajac, 2007), literature has relatively little focused on when firms should pursue one vs. the other (Yin and Shanley, 2008; Profumo, 2017). Moreover, it develops logistics management literature by exploring the strategic motivations of mergers and acquisitions and alliances employed by 3PL companies.

From a managerial point of view, the paper contributes to outline the relevance that certain resources and capabilities present for the competitiveness of 3PLs companies. In particular, the importance of offering value-added services with a complete range of logistics services.

Despite this paper offers important causes for reflection on “M&A versus alliance” decisions, it suffers of some inherent limitations. The paper, in particular, has the typical limitations inherent to the case-study methodology (Yin, 1994), in relation to the replicability of results. Further research will therefore have to extend the number of cases or to verify the applicability of the model to other industries.

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## PERFORMANCE IN MBA EDUCATION: DOES STUDENT'S PREVIOUS PERFORMANCE AND DEGREE MATTERS?

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### ABSTRACT

**Purpose** – *Masters in Business Administration is the most sought-after post-graduate program in the country. However, not much is known about how past academic performance and under-graduate degree of students influences the performance in MBA programs. Given the fact that recruiters have been expressing concern about the employability of MBA graduates, it is very critical that MBA institutes put in place an objective admission criterion. With this background, this study tries to answer whether past academic performance and the type of under-graduate degree matters for MBA performance. The study also explores if there is any difference between performance of students in a regular MBA program with the of a foreign collaborative MBA program.*

**Design/methodology/approach** – *The study is based on information of students from two academic year from one B-school located in Mumbai, India. The total number of students' information used in the study is 254. The study uses a two-sample t-test to determine if there is any difference in present and past performance of student enrolled for regular MBA program with that for foreign collaborative MBA program. Further, a multiple regression model is used to identify the factors that influences the MBA performance.*

**Findings** – *Our study reveals that performance in regular MBA program is better compared to the foreign collaborative MBA program. In terms of explaining the MBA performance, past academic performance starting from school final does matter but the type of degree in the under-graduate program doesn't. The findings suggest that quality of student matters.*

**Research limitations/implications** – *The findings of our study have serious and important implication of designing admission criterion of MBA programs. Institute must pay due importance to students' past academic performance while there is no requirement to select students based on their under-graduate degree. The scope of the study is however, restricted to only one B-School students and factors such as admission test (CAT, GMAT, etc.) score, age, gender have been ignored.*

**Originality/value** – *The study is one of its kind which considers past academic performance from school level to under-graduate program to explain MBA performance. It is also a first study which compares the performance of students from a regular MBA program with that of a foreign collaborative*

*program. Therefore, the insights from our paper would provide valuable inputs in designing admission criterion and planning any collaborative program.*

*Keywords: Management Education, under-graduate degree, academic performance, regression analysis*

## **INTRODUCTION**

The Master of Business Administration (MBA) degree is one of the most sought-after qualifications in the world of Business and is often considered to be the “ticket to the executive suite” (Kelan and Jones, 2010). This is seen as one of the fast tracks to reach a leadership level in a corporate with fat packages which include perks and bonuses. Over last 100 years ever since Harvard Business School started its MBA course in 1908, there have been many reputed Institutes that provide high quality education in the world across North America, Europe and Asia. In India the number of Management Institutes and the number of students has proliferated over the years. As per the Associated Chambers of Commerce of India (ASSOCHAM) reports of 2016, around 200,000 students graduated from 5,000 management institutes in the year 2016-17. However, the biggest challenge is that, while the top institutes still hold some merit in the industry, majority of the fail to provide quality management education and as a result their graduates remain un-employable. (ASSOCHAM, 2016). On the contrary, majority of these business schools face the challenge of selecting the appropriate applicants, certify the quality of their education, and fulfill the promise of student expectations of getting jobs in their dream companies. These blue-chip companies (well-known and reputed in their areas of business Consulting, Consumer Products, Banking & financial Services, Hi-Tech etc..) go to selective B-School campuses for hiring based on the MBA performance of students. While we know that the performance of the students depends on the quality of education provided by these B-Schools, it cannot be ignored that the quality of the incoming students is also an important factor that impacts the performance. With the highly competitive activity between B-Schools to attract the best students, the admissions criteria become an important factor in predicting the MBA performance.

There have been many studies that have sought to examine the issue of the quality of incoming students and most studies have focused on the previous education performance in high school and UG Grades, demographic variables, entrance qualifying examinations like CAT, GMAT, MAT, XAT, and previous work experience. Many B-Schools have often used a mix of all the above criteria for the student selection process and some of the Top Indian B-Schools have in many cases specifically stated their preferences on one or more parameters. While some B-Schools have used work experience as one of the important qualifying parameters, others have used under-graduate specialization as a preferred choice. We do know that the most common under-graduate programs that are studied by students are

bachelor's degrees in, Arts, Science, Commerce, Business Administration and Engineering. Using UG specialization as a criterion comes from the general understanding that Science & Engineering graduates are more analytical and hence likely to be able to use management tools, techniques more effectively in problem solving situations. Similarly, students with Commerce and Economics background are likely to be more proficient in the field of Finance. While a lot of studies has been undertaken to study the various factors that impact the performance, there has been limited research done on the influence of the stream of undergraduate program which makes the objective of our study relevant. The purpose to study whether the previous degree matters for MBA performance is possibly the first of its kind in the Indian context. This study has been done at Universal Business School, Karjat near Mumbai in India, which is one of the premier, fast growing B-School. Universal Business School which was founded in 2009 by three Global CEO's and endorsed by 60 CEO's, offer various bachelor's and master's program in Business management providing both local accredited MBA programs as well MBA programs with Foreign Collaboration. However, while the entry criteria for both the master's program are the same, the course curriculum, pedagogy and assessments criteria has some differences.

We first review the findings of the prior research to confirm the student's previous performance as good indicators of their success in the MBA program in the Indian context. We then extend this literature by examining the influence of the stream of undergraduate program as an indicator for MBA performance. In this study we analyze data of two different MBA programs which made us undertake an additional study to see if there was any impact on the end results.

## LITERATURE REVIEW

It is a common belief that the admission criterion used for MBA admission capture the ability and the motivation of MBA aspirants. There are numerous studies which have been conducted to examine the admission criteria that are likely to influence the performance of the students in their MBA program. One of the earliest studies on this topic was done by Deckro and Woudenberg in 1977, where they studied GMAT scores and undergraduate GPA's to predict the success of the MBA performance. The study concluded that these two factors were important factors. (Deckro and Woudenberg, 1977). Carver and King (1994) studies also reported that several MBA schools base their admissions on some combination of their Undergraduate GPA's and GMAT scores. They also found that GMAT was a better predictor of performance than undergraduate GPA. However, although a number of studies analyzed the relationship between MBA student performance and these variables, some these studies found inconclusive and conflicting results. One study done by Hecht and Powers (1982) reported multiple correlations between undergraduate GPA and GMAT for first-year MBA students that

ranged from .12 to .67. In another study by Ahmadi, Raiszadeh, and Helms (1997) found that undergraduate GPA explained more than 27% of the variability in graduate GPA, whereas GMAT scores explained 18%. Zwick (1993) studied 90 schools in the United States and Canada to investigate the validity of the GMAT for the prediction of grades in doctoral study in business and management. Zwick found that undergraduate GPA alone tended to be a more accurate predictor than GMAT Verbal and GMAT Quantitative together. Talento *et al.* (2008) also showed that GMAT is one of the best factors to predict MBA success.

In fact, some researchers went a step ahead to investigate whether undergraduate pre-requisite courses like marketing, economics, accounting, etc. predicted MBA performance (Christensen *et al.*, 2012). Many other researchers such as Anderson, Benjamin, & Fuss (1994); Borde (1998); Cheung & Kan (2002); Durden & Ellis (1995); Ekpenyong (2000) have found support for this notion. In particular, Ely and Hittle (1990) showed completed accounting courses were significantly correlated with performance in graduate business studies. Additionally, Anderson and colleagues as well as Didia and Hasnat (1998) found students who had taken calculus and other mathematics courses performed better in economics and finance courses than students without such background. Though researchers studied impact of certain subjects on the MBA performance, there is no possible evidence in research to examine in detail what specializations will impact the performance.

Researchers have also sought to examine other variables that influence the MBA performance like demographic variables (education, income, age, marital status), social (student-classmate relationships, student-lecturer relationships), individual (work experience, skills) and organizational (location, work atmosphere, technology facilities). Quite a few standalone reputed institutions have also done studies in this area and one such study was conducted by Institution of Business Economics of Istanbul University where demographic, social, individual and organizational factors related data was collected through a survey method (Cigdem and Mustafa, 2013). In this study researchers used the Categorical Regression Analysis as the statistical method and found that two demographic factors, age and marital status influenced the MBA performance significantly.

Some researchers explored age as an explanatory factor in graduate GPA performance. Peiperl and Trevelyan (1997) found age to have predictive value. They discovered a negative correlation between age and MBA performance with younger students performing better than older students. One explanation for this result may be the fact that younger students have more recent experience with academic environments and thereby are better primed for graduate study. However, Graham (1991) and Paolillo (1982) found age not to be significantly correlated with MBA performance. Finally, Braunstein (2006) compared business and nonbusiness undergraduates and found age and work experience to be more significant than GMAT for nonbusiness degree MBA applicants. In another

study, a team of researchers predicted the MBA performance of applicants at Stanford University School of Business, one of the top 10 rated B-Schools in the world. (Srinivasan *et al.*, 2017). They applied multiple regression methods on the past applicant information thus aiding the selection process at Stanford where thousands of applications are received every year. Similarly, a predictive model using multiple regression by Yang & Lu (2001), showed that undergraduate grade point average and scores on the Graduate Management Admissions Test had significant impact on MBA performance. A detailed literature review of studies published from January 1990 to December 2013 on the academic performance of students or graduates of MBA programs was conducted by Silvana *et al.* (2016), The review results showed that most researchers studied relations between the entrance test GMAT (Graduate Management Admission Test) and UGPA (Undergraduate Grade Point Average) as predictors of GGPA (Graduate Grade Point Average). Adams and Hancock (2000) also found the number of years of work experience between the undergraduate degree and MBA functioned as a good predictor of MBA success. However, Dreher and Ryan (2000, 2002, 2004); Dugan, Grady, Payn, Baydar, and Johnson (1996); Graham (1991); and Peiperl and Trevelyan (1997) all concluded that work experience was not correlated with graduate GPA. Surendran and Monisha (2017) study done at National Institute of Technology, Trichi, India considered variables like Age, Gender, High School grades, UG grades, Common Admission Test (CAT) percentile and Work experience and used Logarithmic Regression to predict the MBA performance of 64 students. Their study results indicated that Work experience was the most influencing factor and the high school grades were the least influencing factors for MBA performance.

Researchers like Krambia-Kapardis & Zopiatis (2008) have taken the research to another dimension by considering whether there is a balance between “head” and “heart”. Based on the survey of 1000 students in Cyprus they found that factors like honesty, loyalty to family and friends, friendliness, self-confidence and world peace are ranked as the five most important personal values for college students. Similarly, Damnjanovic *et. al.* (2020) explored the extracurricular activities such as mentoring top talented students for international business case competitions on performance. This according to authors, provides the opportunity for the development of phonetic skills, knowledge and leadership potential of under-graduates and has a positive impact on students' overall development.

In lieu of the limited studies to examine the influence of the Undergraduate specialization on the student MBA performance, we embarked on this study. There was also very limited study on the impact of High School grades which is another criterion that has been analyzed in this study.

## **RESEARCH OBJECTIVE AND METHODOLOGY**

The key research objectives of the study are:

- i. To understand the influence of high school academic performance on the academic performance during Post-Graduate Management education.
- ii. To understand the influence of various streams of under-graduate academic performance on the academic performance during Post-Graduate Management education.
- iii. Any marked difference between the performance of students in regular MBA program and foreign collaborative MBA program

Therefore, based on the objective of the study our hypothesizes to be tested are as follows:

### **Hypothesis 1**

H<sub>0</sub>: There is no difference in performance of students between regular MBA and foreign collaborative MBA.

H<sub>1</sub>: There is a difference in performance students between regular MBA and foreign collaborative MBA.

### **Hypothesis 2**

H<sub>0</sub>: There is no association between the various streams of Under -Graduate program and performance in the Post-Graduate Management education.

H<sub>1</sub>: There is an association between the various streams of Under -Graduate program and performance in the Post-Graduate Management education.

### **Hypothesis 3**

H<sub>0</sub>: There is no impact of past performance on MBA performance.

H<sub>1</sub>: There is an impact of past performance on MBA performance.

**Considering the objectives of the study and the hypothesis framed, we have collected related to academic performance for all students of both the regular MBA and foreign collaborative MBA program from Universal Business School, Mumbai. The data collected include grades of students from 10<sup>th</sup>, 12<sup>th</sup>, undergraduate and post graduate level for batched of two academic year (2017- 19 and 2018-20).**

We use two-sample t-test to test the first hypothesis, which is to identify if there is any significant difference in the mean performance (both past and present) of students enrolled for the regular MBA program and the foreign MBA program. The analysis of the second and third hypothesis is done based on the theoretical framework provided by Holton (1996), which proposes a causal relationship among motivational elements, environmental elements, ability or enabling elements and outcomes. Holton suggested that individual performance is a function of learning outcome, which, in turn, is influenced by motivation to learn and individual ability. However, unlike Holton's model our focus is primarily on the "ability" aspect of the students, assuming the they are motivated enough for the

course and the institute provides them the conducive environment for effective learning and outcome. We use the past performance of the MBA graduates to evaluate their ability to perform in the MBA program. For the purpose of our analysis, we use a multivariate regression model, where the final MBA grades is the dependent variable while the grades at 10<sup>th</sup>, 12<sup>th</sup> and undergraduate level along with the undergraduate degree as the dependent variable. The graduation degree is captured using dummy variable. We assume that business related degrees (BBA and BCom) are the most suitable graduate degree for MBA. So, we treat these two degrees as the base. Remaining degrees are grouped as Technical degree (BE and BCA) and Others (BA and BSc). Apart from these, we also use two control variables, the batch year and batch type. We use a year dummy to differentiate the 2017-19 from 2018-20 batch and another dummy for MBA program to differentiate the foreign collaborative MBA with regular MBA. The results of our analysis are discussed in the following section.

## ANALYSIS AND RESULTS

We have collected data of 254 from two consecutive batches of both regular and foreign collaborative program. The detailed breakup of students is provided in the following table 1 while the descriptive statistics of 254 students are provided in table 2. The descriptive statistics suggest that on an average, score for the sample students have a downward trend. The highest is for the 10<sup>th</sup> standard while lowest for MBA. Moreover, the variation has also gone down, lowest for MBA scores. Students performance is more consistent at the MBA despite having higher variability in performance in lower classes. However, this consistency would have been better if the grades for MBA would have improved.

Table 1. Details of Students

|                 | Regular MBA | Foreign Collaborative MBA |
|-----------------|-------------|---------------------------|
| 2017 – 19 Batch | 59          | 57                        |
| 2018 – 20 Batch | 70          | 68                        |
| TOTAL           | 129         | 125                       |

Source: Compiled by authors.

Table 2. Descriptive Statistics

| Variable         | Obs | Mean    | Std. Dev. | Min     | Max     |
|------------------|-----|---------|-----------|---------|---------|
| 10th Score       | 254 | 75.469  | 11.1916   | 7.8     | 97      |
| 12th Score       | 254 | 73.472  | 11.0493   | 48.54   | 95.4    |
| Graduation Score | 254 | 65.5472 | 8.5984    | 7       | 85      |
| MBA Score        | 254 | 63.0835 | 6.19461   | 45.0923 | 79.5864 |

Source: Compiled by authors.

In order to answer our first hypothesis, we use a two-sample t-test. The results of the test are provided in table 3.

Table 3: Results of t-test

| ITEM                          | Foreign MBA |       |      | Regular MBA |       |      | T-test |
|-------------------------------|-------------|-------|------|-------------|-------|------|--------|
|                               | No of Obs   | Mean  | SD   | No. of Obs  | Mean  | SD   |        |
| Final MBA Score               | 125         | 61.41 | 6.01 | 129         | 64.71 | 5.94 | 0.0000 |
| Final MBA Score (17-19 batch) | 57          | 60.09 | 6.18 | 59          | 63.27 | 5.36 | 0.0019 |
| Final MBA Score (18-20 batch) | 68          | 62.51 | 5.69 | 70          | 65.92 | 6.19 | 0.0005 |

Source: Computed by authors

The results suggest that there is statistically significant difference in performance for the 2017-19 and 2018-20 batches individually as well as both the batches taken together. The performance in Regular MBA (RMBA) program is better compared to the Foreign MBA program. A possible reason for the difference may be that the foreign collaborative MBA exams are more assignment oriented as compared to the regular MBA exam. As students in the Indian undergraduate system are not used to assignment-based assessments, the average performance is likely to lower, however further research will be required to validate the same. In order to have better clarity, we proceed to the results of the regression model. The results of the regression model are presented in table 4.

We have used two regression models in our analysis. In the first model, we consider only the type of graduation degree and the graduation score apart from the control variables. While in the second model, we include the 10<sup>th</sup> and 12<sup>th</sup> scores apart from the other variables as used in Model 1. As expected, the R-square value for Model 2 is higher than Model 1 because of more explanatory variables. However, the R-square value in both the models are relatively low. Only 11.39% and 25.66% of the variability in Final MBA score (dependent variable) is explained by the independent variables. The results do confirm that past performance positively influences the final MBA performance. The coefficients of the graduation, 12<sup>th</sup> and 10<sup>th</sup> scores are statistically significant in both the models. The coefficients of the dummy variables (d\_tech and d\_others) suggest that technical students' performance is lower compared to undergraduate business (BBA and B. Com) students. While, the other undergraduate students (BSc and BA) perform better than business students. However, the coefficients, in both the models, turn out to be insignificant. So, we have to conclude that the graduation degree is immaterial.

Table 4: Results of regression model

|                        | Model 1       |  | Model 2      |
|------------------------|---------------|--|--------------|
| d_yr (2017-19 as base) | 2.803224      |  | 2.573661     |
|                        | 0.7328382 *** |  | 0.6947507*** |
| d_mba (RMBA as base)   | -3.131843     |  | -3.400728    |
|                        | 0.7208689 *** |  | 0.6841921*** |

|                  |              |  |              |
|------------------|--------------|--|--------------|
| d_tch            | -0.9330566   |  | -0.4259592   |
|                  | 0.9715057    |  | 0.9386973    |
| d_oth            | 0.8819207    |  | 0.5795865    |
|                  | 1.296868     |  | 1.260872     |
| Graduation Score | 0.1616516    |  | 0.073594     |
|                  | 0.042593***  |  | 0.0443808*   |
| HS Score         |              |  | 0.1329061    |
|                  |              |  | 0.0343676*** |
| 10th Score       |              |  | 0.0856812    |
|                  |              |  | 0.0362477**  |
| _cons            | 52.59489     |  | 42.32907     |
|                  | 2.905489 *** |  | 3.312013     |
|                  |              |  |              |
| R-square         | 0.1139       |  | 0.2566       |

Source: Computed by authors

These results of the regression analysis are in line with the findings of Yang & Lu (2001) and Silvana *et al.* (2016), whereby the undergraduate academic performance is an important predictor for the graduate academic performance. In fact, all the previous academic performance (10th, 12th and under-graduation) turned out to be significant, confirming the claim that past performance of student is important. However, our objective of trying to determine the best undergraduate degree for an MBA program remains inconclusive. Alternatively, the regression results suggest that the final performance depends a lot on how well student study or absorb the MBA learning, irrespective of whether they come from business stream or technical stream.

A major limitation of the study is that we do not consider other information about the students, such as age, gender, and prior work experience. An inclusion of these factors could have, definitely, improved, the predictive ability of the regression models.

## CONCLUSION & IMPLICATIONS

Our study on the MBA students' academic performance throughs out a number of interesting observations. The results of the regression model with respect to the past performance and its impact on MBA performance is consistent with the existing literature. Ahmadi, Raiszadeh, & Helms (1997) and Yang & Lu (2001) have noted undergraduate performance positively influences MBA performance. We have extended this argument to include the school level and high-school level performance, which has never been considered before. Our findings suggest that past academics at all levels does matter. Moreover, the fact that about one forth of the variation in MBA performance is explained by our regression model (model 2) is really encouraging.

Researchers such as Anderson, Benjamin, & Fuss (1994), Durden & Ellis (1995), Borde (1998), Cheung & Kan (2002); Ekpenyong (2000) and Christensen et al., (2012) have found that the specific knowledge

in a particular stream does have an impact on MBA performance. However, in our analysis we do not find such evidence. Both these findings have serious implication for admission process. MBA institutes should focus on the quality of intake by admitting students with consistent past performance. We also notice that student's performance is more consistent at the MBA despite having higher variability in performance in lower classes. There is also statistically significant difference in performance between the 2017-19 and 2018-20 batches for both regular MBA and foreign collaborative MBA. Moreover, the performance in Regular MBA program is better compared to the Foreign MBA program. These set of findings suggest the importance of quality in program delivery.

Other factors such as GMAT scores (Zwick, 1993; Talento et al., 2008), age (Peiperl and Trevelyan, 1997; Cigdem and Mustafa, 2013) work experience, skills (Cigdem and Mustafa, 2013) human values honesty, loyalty (Krambia-Kapardis & Zopiatis, 2008) extracurricular activities (Damnjanovic et. al., 2020) have also being explored. Including such factors in future studies may provide valuable insights. Our finding is, therefore, limited by the exclusion of the above-mentioned factors. Moreover, the study is based on data from one MBA institute and warrant caution in the interpretation of results.

We finally conclude that addressing the factors as identified in our study would not only help address improve the academic quality of MBA graduates but will make them more employable, thereby benefitting the corporate sector, economy and the society at large.

## **FUTURE RESEARCH**

Some of the limitations mentioned above could potentially be examined in our future studies. Similar to the GMAT used by International B-Schools, in the Indian context the main qualifying exams are Common Admission Test (CAT), Management Aptitude test (MAT), which could be used as criteria to check the influence on the performance. However, given our end objective was MBA performance, one could potentially evaluate if the pedagogy could be one of the critical influencing factors. Especially with the education industry impacted by the pedagogic disruption (Synchronous Online learning) in lieu of Covid-19, it may be interesting to check the impact on the performance of the current batches of students.

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## SIMPLE LIFE FOR BEGINNERS: VALUES, MOTIVATIONS, MEANINGS AND OUTCOMES

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### ABSTRACT

Voluntary simplicity (VS) is a lifestyle characterised by consumption reduction, sustainability and a focus on intrinsic values. There is a dearth of studies about this consumption profile, its motivations and its characteristics, in particular about consumers who are taking steps towards voluntary life simplification: the beginner voluntary simplifiers (BVS). This study focuses on this segment and tries to understand the values, motivations and the meanings of consumption, with the aim to better understand the process of change and the outcomes of this lifestyle.

This article presents narratives of consumers in the initial stage of VS exploring their consumption behaviour through in-depth interviews and a focus group. The results shed some light on the consumption patterns of this BVS group and their perceptions about the lifestyle transformation. Findings highlight multiple manifestations of voluntary simplicity, as well as obstacles to adopting sustainable consumption and indicate practices to overcome such barriers. Implications and suggestions for future research are discussed.

*Keywords: Voluntary simplicity; Beginner voluntary simplifiers; Consumption Behaviour; Exploratory Study.*

### INTRODUCTION

Overconsumption and unsustainable lifestyles are social issues which point to the necessity of environmentally conscious and responsible choices. Some consumer groups avoid high materialistic profiles and actively engage in exploring options to simplify their lifestyles, as is the case with the voluntary simplifiers.

Interest for voluntary simplicity (VS) and related trends, such as minimalism, is attracting increasing attention from the popular press, media and academia. There is a growing body of literature on consumers that are voluntarily changing their habits of consumption, downsizing the amount of products purchased and who want to lead a more balanced life (Markowitz and Bowerman, 2011, Huneke, 2005, Ballantine and Creery, 2010, Peyer et al., 2017, Walther and Sandlin, 2013). Researching

VS is important for a better understanding of consumer behaviour in contemporary consumer cultures (Alexander and Ussher, 2012) and drawing implications for increasing sustainable consumption (McDonald et al., 2006, Peyer et al., 2017, Brown and Kasser, 2005).

The decision of voluntarily reducing consumption allows consumers to control how they adopt this lifestyle (Kronenberg and Iida, 2011). Indeed, the voluntary nature is a central aspect of this lifestyle, leading to different meanings for similar consumption reduction behaviours. In certain instances, individuals adopt VS fully in multiple aspects of their daily lives. However, there are different levels of engagement, with some consumers partially adopting this lifestyle, embracing some practices and not others. Understanding the different degrees of VS is important for the advancement of knowledge about sustainable consumption practices (McDonald et al., 2006, Shaw and Moraes, 2009, Brown and Kasser, 2005). This research focuses on consumers who partially adhere to VS, departing from the profile of indifference to the 'beginner' profile of this lifestyle.

We report an exploratory study consisting of in-depth interviews and a focus group of beginner voluntary simplifiers (BVS), with the aim to understand people who are in the process of adopting conscious consumption through materialism reduction and simple life oriented-behaviour. Although these simplifying efforts may occur at a small and individual scale, they are useful approaches to develop a sustainability ethos. VS has been object of a growing body of research, however fewer studies focus on BVS. Our literature review highlighted the need for further investigation into the process leading to life simplification through consumption. Hence, this study's main research question is: What values, motivations, meanings and outcomes lead consumers to become BVS? This research intends to answer this question and understand what motivates one to take steps towards consumption reduction and life simplification. This may have important implications for research, companies and public policy as the concept of BVS can make VS more perceptible and more marketable (Oates et al., 2008).

## **VOLUNTARY SIMPLICITY: MAIN CHARACTERISTICS AND LEVELS OF ENGAGEMENT**

VS has been described as a low consumption lifestyle that can have a positive impact on life satisfaction and the perception of happiness (Alexander and Ussher, 2012, Huneke, 2005, Boujbel and d'Astous, 2012, Brown and Kasser, 2005). Elgin and Mitchell (1977) listed five VS core values: material simplicity; human scale; self-determination; ecological awareness; and personal growth. According to Craig-Lees and Hill (2002), voluntary simplifiers reduce consumption because of three primary motivations: environmental, spiritual, or self-oriented causes. These authors suggest that future studies need to investigate the different underlying drivers of the simple lifestyle choices. Environmental consciousness is considered a common motivation for this lifestyle, however, other aspects cannot be

ignored when studying simple life as consumption reduction or a search for the reduction of stress (Rich et al., 2017). Personal dimensions, benefits and self-quality of life are common motivations for voluntary simplifiers that need to be more fully studied (Marchand and Walker, 2008).

Among the 'non-simplifiers' and the radical profile of voluntary simplifiers, there are different degrees and natures of engagement (Bekin et al., 2005, Etzioni, 2004). Elgin and Mitchell (1977) present four categories of voluntary simplifiers: Full Voluntary Simplifiers; Partial Voluntary Simplifiers; Sympathizers; and the Indifferent or Opposed to Voluntary Simplicity. Etzioni (2004) classifies simplifiers into three levels: the downshifter; the strong simplifier; and the holistic simplifier. Huneke (2005) distinguishes between the highly and the less committed simplifiers through consistency in some practices that require ongoing effort.

McDonald et al. (2006) analysed previous categorizations in the field and suggested unifying the plurality of levels and denominations with a new concept: Beginner Voluntary Simplifiers (BVS). For these authors, Non-Voluntary Simplifiers (NVS) is the group that are not interested in sustainable or low consumption practices; Voluntary Simplifiers are those who are deeply engaged in the philosophy of responsible consumption and minimal practices. The BVS is a target group that may adopt some practices of VS but they are not radical. The three groups are interpreted as fluid, with the possibility of movement among them (McDonald et al., 2006). Research about BVS is relevant to know more about the process of adopting conscious consumption (McDonald et al., 2006). Sandlin and Waither (2009) and Gambrel and Cafaro (2010) found in their research that the moral identity development of simplifiers was an 'ongoing process'. BVS may not become full voluntary simplifiers in the future, it does not refer exclusively to a phase, it is a category that has its own particularities and may not advance to radical profiles (McDonald et al., 2006).

The BVS is a group of consumers that try to analyse market systems to find ethical alternatives (Shaw and Moraes, 2009, Peyer et al., 2017). Marketing professionals and companies need to understand the consumption behaviour of BVS to reach this audience with consistent products and services, ensuring companies have more coherent, environmental and socially conscious practices. This study explores the consumption behaviour of BVS in the facets of the process of changing behaviour; motivations, values, meanings and outcomes of life simplification.

## **METHODOLOGY**

This research aims to understand the values, motivations and meanings for taking steps towards simplifying consumption. We have conducted an exploratory study consisting of two qualitative data collection methods: (1) in-depth interviews; and (2) a focus group.

An in-depth study of the motivations, values, meanings and marketing outcomes behind consumption is important in order to develop knowledge about this field and its challenges. In-depth interviews with a flexible and adaptive way of questioning, to provide free will of the participants. Through contact with the participants, they were encouraged to describe experiences, trying to develop a conversation and to emphasise narratives. McDonald et al. (2006) suggest in-depth interviews to research the BVS. As far as the focus group is concerned, it is applied to understand how interviewees perceive a situation, it is a dynamic meeting where participants are encouraged to discuss specific topics they have in common in their lives (Parker and Tritter, 2006). This method was chosen to complement the individual interviews because the inter-relational dynamics of participants enriched the findings with discussions about VS.

Regarding the operationalisation of the concept of BVS, they were identified by self-categorization (Brown and Kasser, 2005, Cherrier, 2009, Huneke, 2005, Alexander and Ussher, 2012, Sandlin and Waither, 2009, Walther and Sandlin, 2013, Zamwel et al., 2014). The interviewees had some motivations and goals for simplifying life, but they identify themselves as someone who adheres to the VS in an initial or partial way. Nineteen BVS aged between 21 and 68 years old were interviewed. The focus group had 8 BVS female participants between 24 and 35 years old and the meeting lasted seventy minutes. Homogeneity was observed during participant recruitment to facilitate communication and sharing of opinions (Parker and Tritter, 2006). The group interaction highlighted participant perceptions about challenges, common motivations and practices in VS.

The collected data were transcribed and carefully systematised into categories in order to identify plural aspects behind the BVS consumption behaviour. Content analysis was used to reduce and structure data with the development of thematic categories and the identification of relationships (Malhotra et al., 2012).

## **FINDINGS AND DISCUSSION**

### *Motivations*

This BVS group presented multiple motivations for simplifying life, that were organized into two groups: The enablers are helpful drivers to engage in this lifestyle, while the barriers are obstacles, i.e. constraints that limit the adoption of simple life, cited as a response to why they did not consistently adhere to some responsible practices.

Among the enablers, spiritual motives were cited as important reasons. Life satisfaction and the motivation of decluttering life are also positive causes to engage in simple life. These findings are in line with Huneke (2005) and Alexander and Ussher (2012). Respondents associate VS with a happy life with fewer problems. Victor noted,

*I don't try to simplify my consumption because it is more economical, it's simply because I feel that this simple way of living is what satisfies me. Simple living satisfies me*

Coherence, self-control, conscious choices (Huneke, 2005) and more self-reliance are positive aspects that motivate them to VS. Rejecting the consumption logic and the status derived from high materialism have also been mentioned as enablers to VS. Social reasons were the most cited drivers, as the motivation to help people in need and the intention to share possessions with others; environmental reasons are also important causes to engage in VS. Economic reasons were less cited as the impulse for simple life.

Barriers identified by respondents restrict involvement in VS practices. Regarding perceptions about brands, mistrust is cited as a common difficulty, as there are doubts whether the promoted practices are truthful. Interviewees reported inconsistent behaviors, as a kind of confession about their incoherent practices and the inconstancy of this lifestyle. Some of the respondents feel guilty when talking about these barriers; others just justify these negative motivations and do not intend to make further progress in this lifestyle.

Convenience is an important aspect that makes them neglect some ethical practices. They also reported impulsive buying behavior and unawareness about relevant issues. Aligned with these findings, McDonald et al. (2006) talk about a 'tension' between the practice of reducing consumption and the marketing opportunities related to this public. Huneke (2005) concluded that BVS did not report such high levels of consistency and undertook fewer activities, affirming that consistency was a distinguishing aspect between more and less highly committed simplifiers.

Interviewees assume that adopting conscious consumption is complex and difficult to balance with the lack of time in daily life, and with the lack of information about products around them. These findings are in line with Huneke (2005) and Alexander and Ussher (2012). Respondents express their interest in knowing more about the production process and the human resources of companies. High prices of sustainable products are cited as barriers to a full engagement in VS and presented as a disadvantage of some sustainable and ethical brands. These aspects are used to justify some incoherent practices in daily life, as Maria noted:

*I do not know very much about brands that respect the environment, that do not conduct animal experiments, they must promote more ethical practices. And, of course, some of these brands charge high prices, so it is difficult to acquire their products.*

Some marketing strategies, such as the richness of options, aesthetic attributes and the supply of new models, are temptations to acquire more products. Respondents also emphasize social aspects as barriers: the judgment of others, social patterns and the relationship with people with different lifestyles.

These results are aligned with the classification of VS motivations by Craig-Lees and Hill (2002), namely environmental, spiritual and self-oriented forms. Among the enablers, the environmental motivations include consciousness, environmental reasons and the rejection of the consumption logic; the spiritual group of motives includes some religious causes, social reasons, social status rejection and the search for coherence; while the self-oriented ones embrace life satisfaction, decluttering life, self-control, and economic reasons. We can observe divergent drivers that position this group within conflicting motivations, such as rejecting social status versus social influence; or rejecting consumption logic versus consumption temptations.

### *Values*

This topic presents categories that these BVS have regarded as valuable in VS. A balanced living, striving for a simple life without excesses seems to be important to respondents, as mentioned by Huneke (2005), with some consciousness, self-control, contradictions and concessions. They also value a work-life balance (Bekin et al., 2005), and the equilibrium between their individual styles and the consideration of the local community (Shaw and Moraes, 2009).

Low materialism, material simplicity and minimalism are important values for the interviewed BVS, which is in alignment with some VS studies (Huneke, 2005, Etzioni, 2004, McDonald et al., 2006, Kraisornsuthasinee and Swierczek, 2018, Balsa-Budai et al., 2019, Elgin and Mitchell, 1977). They value fewer possessions, associating this with wellbeing and lightness. Owning less (Shaw and Newholm, 2002) is a consequence of the consumption reduction of this BVS group. Respondents also value detachment from material things and social status detachment, seeking some distance from a consumerist society, and expressing their resistance to consumption culture.

Some emotional attributes are emphasized when talking about values, the objects that they decide to keep have great importance in their life and history. This finding shows that there is a closeness and a distance from material possessions in VS, as mentioned by Marchand and Walker (2008). These meaningful possessions do not necessarily have high value to other people, they are commonly associated to old things, handmade articles or special gifts. Experiences in daily life (Huneke, 2005) are also valuable for the interviewees, they often contrast this value with materialism, emphasizing that they now have more time for good experiences with a family-oriented life (Craig-Lees and Hill, 2002), instead of spending time looking for new products in sites and stores.

Some aesthetic values were cited associating VS with simple designs, order and harmony, with the visual aspect featuring in multiple facets of their lifestyle. Respondents also value durability, functionality and quality (Alexander and Ussher, 2012). A preference for quality over quantity was reported (Feola, 2014).

*First, I check if the object is really necessary and important to my routine; then there is a question of price, if it fits the budget. I also do not value the cheapest, because I also value quality, I usually say that we buy neither the most expensive nor the cheapest, we try to stay in the middle. I also wonder if it's something I'll need for a long time ... it must be of good quality. And lastly, there is the aesthetic issue. The aesthetic issue is also very important, since my possessions are related to the expression of my personality ... (Marcela)*

Social and environmental aspects are important in the decision process of respondents, such as the appreciation for the sharing economy and fair trade. Regarding perceptions about brands, the BVS group demonstrated indifference, reporting that signalling social status through brands is not important for them, unless these companies represent similar values to their own lifestyles. They also emphasize transparency when talking about brands, valuing the clear connection between company actions and the communication of these practices. Social responsibility is related with a sense of community (Huneke, 2005); with relatedness, connecting with people and community (Rich et al., 2017, Kasser, 2009); and morality (Kraisornsuthasinee and Swierczek, 2018). The environmental values are associated with the concern for animal welfare and resource scarcity (Moisander and Pesonen, 2002, Elgin and Mitchell, 1977, McGouran and Prothero, 2016, Kraisornsuthasinee and Swierczek, 2018). They report concerns about product disposal since the amount of waste produced is a concern for them. Participants also lay emphasis on the local economy (Rich et al., 2019), giving preference to food produced nearby and by small businesses. They seem to place more confidence in this kind of business. Shaw and Newholm (2002) found that Voluntary Simplifiers drive their consumption choices by strong internal values. Analysing the BVS values, some of them are neither that strong, nor internal values, which is aligned with the more superficial and initial profile of responsible consumption of this group. Some values are dependent on others, fair prices are sometimes cited as a condition to conscious consumption; emotional attributes are more important than low materialism.

#### *Meanings and Associations*

This lifestyle is associated with personal satisfaction, happiness, peace, calm and order. The lack of peace is linked with respondents' previous materialistic behavior. The personal space to enjoy life, lightness and easiness are also linked with simple life.

*I think a simple life is easier, happier... people worry about accumulating things, worry about having. In a simple life, one is not so concerned about having, one lives more lightly. (Clara)*

Freedom, autonomy and identity are closely related to the meaning of simple life. The consumption profile is associated with individual identities. The studies of Ferreira and Scaraboto (2016) and Shrum et al. (2013) present similar associations. Shrum et al. (2013) argue that materialism is an aspect of identity; it is about the acquisition and the use of things, services, experiences and relationships to provide symbolic value.

Sandlin and Waither (2009) found that the moral identity of VS is a continuous and a complex learning process, having self-practices and self-regulation, and with an individualized approach to personal moral development. Personal growth has an important meaning for some BVS that associate a simple life with individual, moral or spiritual development. Humanity is also an essential association to BVS, all of them emphasized human values and social responsibility when talking about VS. The focus on experiences and relationships is also part of this humanity association. For BVS, belonging to a particular group is an important aspect of simple living. Some of them are aware of the image their lifestyle conveys to others and do not want to come across as superfluous or ostensive, they want to belong to groups that are distant from a luxury lifestyle and conspicuous consumption.

Self-control, consciousness, coherence and focus are interrelated aspects commonly associated with VS. Simple living involves thoughtful consumption (Kronenberg and Iida, 2011), the capacity to reflect about purchases is closely related to conscious consumption and to the voluntary aspect of this lifestyle. Visual harmony is linked to simple life, associating some visual characteristics with broader aspects, as emotions, energy, personality and order in plural contexts of life. "Less is more" is the most popular association regarding this BVS group. They associate this concept with different contexts: the frequency of new purchases; the objects they already own; the visual aspect of the products they choose to buy; and with the aesthetic they prefer regarding architecture, art or their personal image.

#### *Marketing Outcomes*

The following analysis is about the practical consequences of the partial engagement in VS, such as product preferences and general consumption habits. With regard to product preferences, interviewees mentioned they leaned towards second-hand products, as stated by Shaw and Newholm (2002). They pointed out the sustainable and economic advantages of this practice. They also emphasized purchasing quality and useful products, instead of luxury and ostentatious ones. Interviewees talk enthusiastically about sustainable products, sharing positive consumption experiences they had.

Respondents generally prefer simple designs and casual products, with the intention of not being associated with luxury consumers or with some wealthy social status. While they may pay for better options, they prefer products and services that are not so distinctive, with the intention of not being part of a culture of ostentation and being able to spend their money on more meaningful experiences.

When participants talked about simplifying consumption, all of them exemplified with clothing. This is similar to the study of Alexander and Ussher (2012). Clothing seems to be relevant to their consumption profile and to communicate their identity. The fast-changing nature of fashion has been considered incoherent and not welcome for this consumer group. Research participants demonstrated particular interest for timeless and durable clothes that can be adequate to multiple occasions and stay

in good condition for several years. The timeless aspect is commonly associated with aesthetics characteristics, including a preference for simple lines, neutral colours and discrete details.

All respondents talked about the habit of reflecting before purchasing, they already have - or are in the process of - acquiring some control over consumption choices, with conscious decisions that take some time and patience when evaluating options. Many studies about VS emphasize reflection (Shaw and Moraes, 2009, Gambrel and Cafaro, 2010, Marchand and Walker, 2008, Kasser, 2009, Rich et al., 2017, Williams and Poehlman, 2017). Sara, a young architect, stated:

*Before changing my lifestyle, I didn't think about consumption. I wanted something and just went shopping for it, do you understand? Nowadays I stop and think, I reflect once, twice, three times if I really need that thing, then, if it is really indispensable, I'll buy it.*

Some respondents referred to avoidance of sales, they do not buy just because of the promotions, there must be other motives to purchase. Consumption reduction is a very common practice among the interviewees, they try to reduce shopping visits (Huneke, 2005), rejecting the habit of thinking often about consumption needs. They try to use their possessions frequently, even though it does not come easily.

*I do not buy so much stuff anymore, first of all, because there is no need to visit malls and stores often just to pass the time... I also do not buy fashion magazines, they just end up occupying more space... I do not think about what to consume all the time. Our society is obsessed with these thoughts, what to consume all the time. (Olívia)*

Sorting the waste and recycling are cited by BVS as common daily practices. Making frequent donations of products is also a habit reported by this BVS group. It happens when they buy new things or receive gifts. This disposal practice is commonly related with a social intention and as a solution for the issue of accumulation of possessions. According to Etzioni (2004), when people are positively motivated with no-materialistic values, they are more inclined to share their excess resources. The act of disposal for voluntary simplifiers can be seen as a form of empowerment, contributing to the circulation of the material (Cherrier, 2009). Respondents consider the sharing economy as a possible solution for materialism issues.

## IMPLICATIONS AND CONCLUSIONS

This research intends to contribute to understanding the motivations, meanings, outcomes and values of the group between the NVS and full voluntary simplifiers, shedding some light on the factors that trigger the adoption of VS. Despite the growth of studies about holistic simplifiers, it is important to focus on the behaviour of BVS (Ballantine and Creery, 2010, McDonald et al., 2006, Oates et al., 2008). Understanding BVS can help to know more about the process of engagement in the two other groups,

full voluntary simplifiers and NVS (Oates et al., 2008), acknowledging the call by McDonald et al. (2006) for further studies about the marketing implications of BVS.

The integration of different motivations and the complexity profile of VS may offer contributions to help on urgent issues of consumer behaviour, such as high materialism and irresponsible consumption. To the best of our knowledge, neither of these themes has been explored together in the context of the values, meanings, motivations and outcomes of BVS.

VS can be an avenue to understand antecedents and consequences of sustainable living (Rich et al., 2019). The results of this research shed some light on the perceptions and practices of BVS and suggest useful implications for research, companies and policy makers in the study and promotion of responsible consumption.

The BVS group presents several VS characteristics but some specific aspects may be useful to incentivize the process of changing consumption. Identifying the values and motivations related with reducing consumption can provide an understanding of consumers' preferences, particularly, the importance of balance. The symbolic associations regarding VS are important in the design of public policies to reduce high materialistic behavior; these meanings may be also relevant to understand the richness of symbolic associations around simple life. Some findings are sensations, concepts, feelings and goals, relating VS with personal, visual and social aspects.

Future research can focus on the effects of communication strategies to promote sustainable consumption and simple life. It would also be interesting to research the relationship between aesthetics and simple life in order to better understand the meanings and symbolisms around sustainable consumption. In terms of practical implications, the outcomes of this research may help managers to integrate some of the results observed with business strategies, given the increase in the number of consumers adopting VS (Markowitz and Bowerman, 2011, Huneke, 2005, Ballantine and Creery, 2010, Peyer et al., 2017, Walther and Sandlin, 2013). Companies need to achieve a better understanding of BVS in order to develop sustainable and durable products and the supply of services focused on this consumer's quality of life. This research area can encourage coherence and transparency in products and services, knowing that this may increase consumer loyalty and trust from BVS and related groups. Many business areas have shown a particular interest in VS, in order to tailor their services and products to this lifestyle through market segmentation, such as tourism (Kannisto, 2018) (Chieh-Wen et al., 2008), food and organic products, and fashion.

The association between VS, the search for well-being and the reduction of consumption and working hours may stimulate the development of corporate human resources policies to promote the work-life balance.

Qualitative analysis allows for a deeper immersion in the subjective aspects of the topic, enabling unique findings. But this approach also has limitations in terms of rationalization of data and the broad application of the conclusions. The small samples of in-depth interviews are also a limitation of this study considering that this research profile does not allow for generalizations. However, clarifying what the different typologies, motivations and behavioural patterns of BVS are may also be an important contribution of this study.

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## WORKING CAPITAL MANAGEMENT AND FINANCIAL SUSTAINABILITY PERFORMANCE ANALYSIS IN SMES

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### ABSTRACT

The idea of this research is to find out if the hypothesis about the impact of operating working capital management on business financial sustainability and, eventually, profitability is verified in the market of small and medium Italian companies. This analysis is empirical, being developed through a validation carried out directly on the data of the companies included in the sample. In order to give relevance to the data resulting from this process, 3,272 observations were collected, relating to 409 companies for a period of 8 years. The originality of this research lies both in the country taken as a reference (Italy), but also in the deepening of SMEs, since in most scientific papers about the topic, the focus is on a pool of listed companies. The methodology is based on the analysis of SMEs belonging to three production sectors. This was done in order to avoid that average data did not take account of specificities - something that would have reduced the possibility of producing comments - so to find a measure of synthesis for all the variables of working capital and the business cycle. A scoring mechanism has been created which, on the basis of the main indicators of working capital management, attributes a real evaluation to each company taken into consideration, for each of the years of the time horizon. The statistical correlation analyses are then carried out by comparing the score obtained and the main profitability indicators, i.e. ROA, ROI, ROS, ROE and an indicator of financial sustainability as PFN/EBITDA.

*Keywords: Operating working capital management; financial sustainability; profitability, Food industry, SME, Italy*

### 1. INTRODUCTION

Every decision taken within the company has an impact or at least a link with finance (Emmanuel, Otley and Merchant, 1990; Pike and Neale, 2006; Schaltegger and Burritt, 2017). The objective of this area therefore coincides with that of general management, i.e. maximization of value (Jensen, 2001; Yow and Sherris, 2008). To achieve this, three types of choices are made: investment,

financing and liquidity choices (Disatnik, Duchin and Schmidt, 2013), directly linked to economic and financial sustainability of an enterprise (Doane and MacGillivray, 2001).

The investment choices are related to the allocation of resources that the company owns and must be oriented towards activities and projects that can make the business sustainable and profitable (Hart and Milstein, 2003; Achtenhagen, Melin and Naldi, 2013). A distinction is made on the basis of the net present value, which must be positive, i.e. the expected return must be higher than the cost of capital employed. There is the following relationship: the riskier the projects are, the higher should be their yield (Lintner, 1975).

Financing decisions relate to raise the necessary funds for the company and have a direct impact on the financial structure. It must respect the level of risk of the projects to be financed, and their pay-back period while maximizing the value of the investments. Financing and investment choices are strictly related and, although different in nature, must be managed as a whole: the objectives of one activity must not prejudice those of the other. Finally, liquidity management determines how and how much money to mobilize on a daily basis and is commonly referred to "treasury management" (Kaiser, 2011), but even to "dividend decisions"

The finance function plays an intermediate role between the financial markets for raising funds and those for using them. On the basis of strategic planning decisions, it deals with how to meet the needs of funds for real activities, against which there are expected revenues with different deadlines and risk profiles. On a daily basis, there are other activities that fall within this area and are: guaranteeing an effective information system for financial control at the various management levels and optimizing the management of working capital by interacting with the other functions in the management of customer credit and supplier debt and stocks (Hofmann and Kotzab, 2010).

In fact, it is advisable to consider long-term financial decisions in the strategic planning phase, since an active collaboration is needed between executive and financial management, so to create a model for future development which is sustainable from the company's resources (Rauter, Jonker and Baumgartner, 2017). At the same time, in short-term choices, it is necessary that the financial plans and the staff who deal with them, work closely with those who lead the business, so as to ensure that the plans created in the strategic planning are actually consistent with the business situation (Nickols, 2016) and perspectives. In this regard, continuous monitoring and control of what is happening in the company is essential. One of the most useful elements when it comes to the finance function, both in terms of management and control, is working capital (Mathuva, 2015).

The basic idea of the present work is to research if the hypothesis about the impact of working capital management on business financial sustainability and profitability is verified, by analyzing small and medium Italian companies. The research is based on an empirical analysis, being developed

through a validation carried out directly on the data of the companies included in the sample (Remondino and Schiesari, 2019).

In order to give relevance to the data resulting from this process, 3,272 observations were collected, covering 409 enterprises over a period of 8 years.

This type of research was first carried out in 2003 by Marc Deloof (Deloof, 2003) on Belgian firms, but the outcome has been successful mainly in developing countries, gaining little space in the world of Western research. In fact, there are several studies relating to countries such as Pakistan (Raheman and Nasr, 2007), Malaysia (Darun, 2011), Nigeria (Falope and Ajilore, 2009), Jordan (ALShubiri, 2011), Iran (SAREMI, MOHAMMADI and NEZHAD, 2016) and others, there are only a handful of European or American scientific sources, relating to Greece (Lazaridis and Tryfonidis, 2006), Spain (Juan García-Teruel and Martínez-Solano, 2007), Sweden (Andersson and Blomdahl, 2017) and the United States (Cumbie and Donnellan, 2017).

In addition to the reference environment of the study, the originality of this research lies also in choosing SMEs for the analysis, a field investigated by a limited number of papers e.g. (Baños-Caballero, García-Teruel and Martínez-Solano, 2010; Afrifa and Tingbani, 2018), while in most other cases the focus was on a pool of listed companies.

The method also presents elements of differentiation, since it is based on the analysis of SMEs belonging to three specific production sectors. This was done in order to better compare the results of the analysis and to take into account the specificities affecting the level of circulation in different sectors. In (Hawawini, Viallet and Vora, 1986) the authors indicate that working capital behavior is industry dependent and even (Hill, Kelly and Highfield, 2010) consider the industry effect. An original scoring mechanism has thus been created which, on the basis of the main indicators of working capital management, attributes a real evaluation to each company taken into consideration, for each year of the time horizon. The statistical correlation analyses are then carried out by comparing the score obtained and the main profitability indicators, i.e. ROA, ROI, ROS, ROE and PFN/EBITDA.

The first part of the work is devoted to a theoretical in-depth overview of the concept of working capital and its optimization in strategic terms. The second part clarifies the objectives pursued in this research, going into more detail on the basic methods. The third part describes the of the analysis itself, with the deepening of the area of investigation and the choice of the time horizon. Consequently, the dynamics of SMEs in general and of the product sectors over the time horizon and the definition of the indicators taken into consideration are described. The last part consists of data collection and statistical analysis, description of the mechanism of scoring and correlation, followed by a synthetic recap of the results of the present research.

## 2. WORKING CAPITAL AND FINANCE

Net operating working capital (NWC) represents the difference between operating current assets and current liabilities (Yaari *et al.*, 2016).

This amount emerges from the reclassification of the Balance Sheet (Fiechter, 2011) with the criterion of management relevance and has, usually, a positive balance for industrial companies, since inventories and trade receivables generally have a greater amount than accounts payable .. The accounting rules state that an asset or liability is defined as current if it is converted into cash (in the case of assets) or paid (in the case of liabilities) within 12 months.

According to Deloof (2003), the way that working capital is managed has a significant impact on profitability of firms. Such results indicate that there is a certain level of working capital requirement, which potentially maximizes returns. Firms adopt working capital policies to address market imperfections over the operating cycle and incur costs and accrue benefits that affect cash flow and ultimately shareholder wealth (Hill, Kelly and Highfield, 2010)

A popular measure of working capital management is the cash conversion cycle, (CCC) that is, the time span between the expenditure for the purchases of raw materials and the collection of sales of finished goods.

Deloof [17] found that the longer the time lag, the larger the investment in working capital. A long cash conversion cycle might increase profitability because it leads to higher sales. However, corporate profitability might decrease with the cash conversion cycle, if the costs of higher investment in working capital rise faster than the benefits of holding more inventories and/or granting more trade credit to customers

Large inventory and generous trade credit policy may lead to high sales. The larger inventory also reduces the risk of a stock-out. Trade credit may stimulate sales because it allows a firm to access product quality before paying.

A substantial body of research examines individual components of operating working capital in isolation. In (Long, Malitz and Ravid, 1993) and in (Ng, Smith and Smith, 1999) the authors study trade credit policy and find support for the contracting cost motive with receivables used as a product quality indicator. In (Petersen and Rajan, 1997) they demonstrate that receivables are directly tied to profitability and capital market access

In (Shin and Soenen, 1998), the authors researched the relationship between working capital management and value creation for shareholders. They (Shin and Soenen, 1998) used net-trade cycle (NTC) as a measure of working capital management, basically equal to the cash conversion cycle (CCC), where all three components are expressed as a percentage of sales. They examined this relationship by using correlation and regression analysis, by industry, and working capital intensity.

They found a strong negative relationship between the length of the firm's net-trade cycle and its profitability. Based on the findings, they suggest that one possible way to create shareholder value is to reduce firm's NTC.

In (Juan García-Teruel and Martínez-Solano, 2007), the authors collected a panel of 8,872 small to medium-sized enterprises (SMEs) from Spain covering the period 1996 - 2002. They tested the effects of working capital management on SME profitability using the panel data methodology. The results, which are robust to the presence of endogeneity, demonstrated that managers could create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability.

Companies are forced to increase flexibility and efficiency to build a competitive advantage. One of the main levers available to management has been to expand the range of services and products offered (Walters and Knee, 1989). This type of action has an impact in particular on two elements of the assets: credits and stocks, which have therefore grown in importance, to become two of the main components of the company management, not only for their weight in the balance sheet, but also for the strategic importance that they have acquired in this transformation.

If this focus on two components of working capital has influenced international competition since the 1970s, in the last fifteen years, with the spread of an increasingly global market, increased competitiveness and the effects of the economic crisis, these issues have become increasingly the subject of evaluation by all types of companies. In fact, an increasingly urgent need has emerged to control and plan the management of working capital in order to find the right balance between financial and operational choices. At a time like the present, when there are considerable problems for access to credit, it can be very difficult to combine the needs of the financial area with those of the operating area, in turn made problematic by competition and the need to maintain production at the level of quality required, without exceeding in stocks and regulating the delay in payments.

In addition to be an effective control tool, working capital is one of the most delicate elements of the finance function. The choices made with regard to working capital can be considered among the decisions of the financing mix, which have direct effects on the financial structure and, consequently, on the cost of debt and the level of financial risk perceived by the markets. In addition, negative elements linked to the overall profitability of the company may emerge from the management of working capital in the form of past due or uncollectible trade receivables, or losses linked to inventory obsolescence.

Operating NWC originates from the emergence of assets and liabilities in the business cycle (Enqvist, Graham and Nikkinen, 2014), with the additional variable of the loan in terms of delayed payment and higher costs incurred due to deferred receipts. The components influencing payment deferrals therefore have a decisive influence on the determination of the NWC. These include: the nature

of the activity carried out, the decision-making model, the organizational model and, finally, the information system.

As regards the nature of the activity carried out, reference is made to the differences that may arise on the basis of the type of technical-productive cycle and the conditions typical of the industry in which the company operates (Rizzoni, 1991). In some industries, in order to guarantee a certain level of service, it is necessary to keep an adequate variety and a considerable volume of products in one's own warehouse, while in others one is obliged to stock raw materials at specific times of the year due to the seasonal availability of the same. In both cases it is essential to have a large warehouse during most of the activity. The nature of the business, however, does not only affect the dynamics of stocks, but can also change the amount of receivables from customers, because to operate in certain sectors in which customers have a strong position with respect to the seller, it is appropriate to allow very long payment terms. In this way, the customer can finance himself, consequently the days granted become in this way a competitive factor and those who fail in this condition are likely to be replaced soon by other suppliers.

The Net Operational working capital is negatively associated with sales volatility. Increased sales volatility causes firms to reduce their net investment in operating working capital. Plausibly, the incremental cash flow provided by reducing the working capital gap is needed most by firms with volatile sales (Hill, Kelly and Highfield, 2010).

The decision-making model influences the extent to which working capital decisions are not made by a single pool of selected and directly controllable subjects, but are made at all levels of the company hierarchy: from top management to the last operator in charge of invoicing or delivery.

The organizational model is closely linked to the issues of the decision-making process. Also in this case, in fact, it must be considered that the choices are made at all hierarchical levels, causing problems of coordination. It can be difficult to implement a level of control necessary to verify that this plurality of heterogeneous subjects, act following a logic of optimization at micro and macro level. It can be deduced that the less the structure is able to coordinate itself, the more the various decisions will be in conflict with each other and will cause the level of the operative circulating to increase.

Finally, a factor to consider is the corporate information system, i.e. "the set of interconnected elements that cooperate to collect, process, store and disseminate information to support decision-making processes, coordination, control, verification and estimation in an organization. The existence of an information system makes it possible to standardize behavior that would otherwise be the result of extemporaneous choices based on the intuition of the individuals involved, who could consider their work independent of that of others, generating an exponential growth in the components of working capital. These systems, therefore, allow you to improve control over the decisions made and ensure that

everyone has access to the data they need to make choices consistent with their tasks and business planning.

Taking these factors into account, two objectives should be achieved (Ang, 2014): to combine the management of the individual elements of the circulating currency with each other, but also with other company investments; and to analyze the tools available to the management for the management of monetary flows, both as a final balance and in a preventive manner.

Working capital has been addressed by a wide range of sources of economic literature, starting with the main accounting and corporate finance manuals. However, it has been relatively little taken into account by business realities, despite the fact that a large proportion of failures were due to inadequate decisions in the management of business working capital. However, the literature also tended to deal with the issue of working capital mainly in relation to reclassifications of the balance sheet, calculations of indicators, as well as a component to construct cash flow and financial statements, while today it has acquired a new importance.

Different authors (Meyer, 2007; Nazir and Afza, 2009; Nuhui and D ermaku, 2017) support the importance of working capital management with particular reference to the importance of short-term needs and the management of capital reserves.

Since the financial crisis of 2008, companies have seen a deterioration of their operating environment, with managers forced to apply strict measures, cut costs and postpone investments so as to be able to respond to decreases in demand and consequent reductions in production. As a result, liquidity and working capital have become two variables under very close observation, and therefore under continuous monitoring and control. Working capital management has changed a lot and the most common and widespread policies have been adapted to the new economic conditions. Due to the rapid changes in the economy, companies are renewing themselves and finding new ways to compete and working capital is becoming increasingly important among these. Even the recent economic crisis caused by Covid-19 outlined the crucial role of the operational working capital for the company risk and sustainability.

### **3. OBJECTIVE OF THE RESEARCH, ANALYZED COMMODITY SECTORS AND CONSIDERED VARIABLES**

The main objective of this analysis is to verify if there is a link between the optimization of operating working capital and the profitability of the company. This concept, which instinctively seems obvious, since any optimization should result in a better performance, had never been the subject of analysis with regard to the sector of small-medium Italian companies. It was therefore

considered important to check whether this relationship exist, especially considering that the SME is the most common type of firm in Italy.

The analysis includes an in-depth analysis of Italian SMEs belonging to three different sectors of the food industry. In order to proceed with a meaningful analysis, it was considered appropriate to analyze, in addition to SMEs, large companies in each sector to use them by benchmark and variable more sensitive, as it consists of a smaller number of companies, more solid and global and therefore less sensitive to the effects of the crisis. This was done considering that the time horizon had to be as close as possible to the present, therefore certainly including years in which the effects of the 2008 crisis and its consequences were an important exogenous factor that greatly influenced company performance and variables.

The chosen survey area is therefore Italian SMEs. According to the "User's Guide to the definition of SMEs" (European Commission 2015) In Europe in 2013, nine out of ten companies are one SME, accounting for more than 21 million. They have provided 88.8 million jobs, creating 2 out of 3 jobs. It follows that this type of enterprise and its mechanisms are very important to investigate if only for the relevance that comes from such a spread. The basic criteria for assessing whether a company is an SME are clearly based on size. It is important to distinguish SMEs from other types of companies, because they face a number of problems related to market failures and structural barriers that lead them to need special assistance, provided in the form of EU programmes.

A factor to consider is the anomalous increase, but consistent with the general situation, of companies with at least one bankruptcy or liquidation procedure, as it is symptomatic of the difficulties of companies in a context of poor access to credit and tight price competition. As shown in the Figure 6, starting from 2008 the number of companies in bankruptcy or in serious difficulty has grown at a fast pace, with a peak during 2013, followed by a continuous decrease during 2014 and 2015, bringing the values back to those of late 2008 - early 2009.

This fact has a great influence on the analysis, because if a company is in a precarious situation, it is unlikely that, even with an excellent management of the working capital, it will be able to achieve good performance. The SME conglomerate is therefore made up of very solid companies that have managed to grow despite the difficulties and that have remarkable results, and companies in crisis, in a much larger number than in the past, which instead lower the sector and global averages. It is a decidedly heterogeneous whole, but it represents the majority of the Italian entrepreneurial activity, and therefore it is considered valid of an in-depth analysis.

There are many variables that can affect the company's profitability. The most important is the trend of the economy, which affects all companies operating on the national territory. In order to

assess the effects of the crisis on productivity at national level, data were extracted for a summary indicator, GDP, the value of which is issued quarterly by ISTAT.

GDP is a macroeconomic measure sensitive to changes in output and hence in demand at the national level. The figure 7 is expressed in percentage values, in which 2007 is taken as the base year, which is therefore worth 100. It can be seen on the same graph that during 2008 there was a collective collapse at the level of the European Union, but recovered completely (or almost) in 2011 by the other countries, primarily by Germany.

On the contrary, the Italian situation is still very critical, as evidenced by the fact that GDP has not yet returned to pre-crisis levels, even though it shows a slight growth in the data for 2017, then stable for 2018.

Other elements to consider before proceeding with the analysis are data on differences in productivity trends according to the size of the enterprise. It is important to underline the differences between large enterprises and SMEs, especially as both categories will be used in the analysis, one as a variable in question and one as a control variable.

Production levels have not yet returned to the levels of 2007, prior to the outbreak of the crisis, confirming the adequacy of macro data such as GDP to judge the performance of each size category. It is interesting, however, to evaluate how the category of medium-sized enterprises managed to exceed the 2007 standards in 2014, the only positive note of the data under examination. It can also be seen that the average values, regardless of the year, are much higher in large companies than in SMEs, with a difference of around 20,000 euros of added value per employee.

This difference is physiological, as large companies can benefit from economies of scale and have fewer barriers to entry, as well as greater production and distribution capacity. The figure presented in the Figure 8 becomes even more important if we consider that the number of employees in recent years has gradually decreased in the SME segment.

This is probably due to both technological innovation and the continuous drive to reduce costs, whether fixed or variable. This trend has not been so strong in big business and could lead to further discrepancies in the results of the two categories.

A final point that should be mentioned in relation to SMEs in recent years is the suffering. Although the impact of debt has already been considered in terms of bankruptcies or liquidations, it requires further attention, as it is not certain that the presence of impaired debts of companies will only lead to such consequences. Even those companies that have managed the situation and survived the crisis may have had difficulties leading to late payments, the need to restructure loan conditions (which has seen truly exceptional growth) or the overrunning of exposures.

On the basis of the elements that characterized the SME, a time horizon was chosen starting from 2008, the first year in which the effects of the crisis occurred, in order to produce an analysis on the basis of a set of homogeneous values. Taking into account the data for 2007 would have meant creating significant distortions, given the evolution of the Italian market over the last decade, very different from what were the previous standards.

By monitoring the data of a large number of companies in the period 2008-2016, it should be possible to verify whether the hypotheses of correlation between a correct management of working capital and performance exist in reality.

### *3.1. Sectors used for the analysis*

As far as the scope of the survey is concerned, it was decided to investigate the food industry, one of the largest and most important realities of Italian production. The three clusters chosen reflect some interesting areas and relevant realities of the productivity of Italy: the production of milk, its derivatives and cheeses, namely the dairy sector (the first Italian food sector); the production of sweets, a reality worthy of note especially for the Piedmont region, hence the confectionery sector; the production of flour and bakery products, which is a clear symbol of Italian identity in the world.

These three areas have been considered because at the level of production and supply cycle they should be considered as similar, all having to interact with local production, legislation related to the agricultural sector and a deterioration of products in the short term. For these reasons, the results of the analysis could be different, but the variables to be affected are more or less the same, making it possible to look for reasons in a very narrow range of variability.

It is also necessary to consider how, in the years 2008-2015, consumption expenditure for food and non-alcoholic beverages in Italy has suffered a decline, as evidenced by the processing of ISTAT data.

It is clear that until 2006 the growth of average monthly household expenditure grew at a high rate, as evidenced by the two-period moving average (red) and that from 2008 onwards this growth not only stopped, but returned to much lower levels. The sum of 462.33 euros on average for 2008 has never been reached again, despite the recovery underway since 2014. This external dynamic cannot but influence the company's performance and it will be necessary to take this into account when commenting on the results produced by the analysis.

### *3.2. Variables relating to dynamics of operating cycle*

To carry out the analysis, it is advisable to construct two sets of variables: the first set contains the symptomatic indicators of the management of net working capital, and the second set contains the

profitability indicators, to measure the company's performance. The first category relates to the dynamics of the operating cycle; they are:

- Days Sales Outstanding (DSO)

It measures the average number of days before customers settle their claims on the company in question after a sale. Irrespective of the extension period granted by the company, creditors may pay before or after that period. There are no standard values within which it can be considered "good". In order to assess this, it is necessary to compare with the average of the companies in the same sector.

- Days Inventory Outstanding (DIO)

This value represents the average number of days the stock is in stock before it is renewed. Even in this case there are no standard values. It is therefore necessary to make an assessment on the basis of the average of the days of rotation of stocks in the sector to which the company belongs, even if the business model adopted can influence it.

- Days Payable Outstanding (DPO)

The result of this indicator is equal to the average number of days before the company pays the debts it has contracted with suppliers. In this case, it is the nature of the company's activity that has an impact, but above all the size of the company: a known and large company will have more bargaining power and will be able to manage the dynamics of its trade debts at will. This consideration is important, because a longer delay on trade debts corresponds to the company's ability to finance itself.

Therefore, even if a value higher than the average could seem a negative signal and of difficulty in payments, in the presence of a solid financial situation, it is a sign that the company is financing itself in an alternative way. Again, there are no established values and the results have to be compared with the industry average.

- Average Business Cycle Duration (Cash Conversion Cycle - CCC)

This value is the summary of the three previous ones, since it is obtained by adding the number of days of credit extension to that of average stockpile, from which the number of days of debt extension must be subtracted. It is therefore a synthetic measure that expresses the number of days that a company needs to convert incoming resources into cash flows.

The operation required to calculate such an indicator implies that it measures how quickly a company is able to convert liquidity into inventory and trade debts, through the system of sales and receivables, and consequently back into liquidity. Being made up of a combination of these indicators of the state of the company's activity, the CCC indicates how skillful management is in managing short-term assets and liabilities in order to generate liquidity. Also in this case the entity must be measured on the basis of the averages of the sector to which the company belongs and the lower the value of the CCC, the more dynamic the company is and therefore the more it is a good result.

- Net working capital/ turnover

This indicator is the result of the ratio between the value of the net working capital and the turnover recorded in the same year. This ratio is useful to compare different companies but even to measure how the sales growth (or decrease) affects working capital behavior.

- Working capital / turnover

The result of this indicator is obtained by the ratio between the components of working capital assets, i.e. inventories and account receivables, and turnover for the same period. In this case, too, the main aim is the comparability of the results between different years and companies investigating how the ratio changes between companies of different sizes and with different growth rates and if there is positive correlation with profitability.

As with the previous one, the interpretation of this value is subject to the action of different forces. Mathematics suggests that an increase in the denominator, i.e. in turnover, which is a positive signal for the company, would lead to a decrease in the result.

### 3.3. Variables relating to performance

The performance variables taken into consideration are the main profitability indicators plus an element that concerns the sustainability of the company.

- Return on assets indicator (ROA)

The ROA expresses the rate of return on the company's total assets. It is an indicator of efficiency in the use of the resources present in the assets in order to produce a profit. The ROA is obtained from the product of the ROS and the rate of rotation of the asset. ROA is also one of the factors that must be multiplied to obtain ROE. This indicator can be used to determine whether assets are best managed in such a way as to ensure profitability or not.

- Return on investment (ROI) indicator

ROI is the return on investment offered by the company. It is one of the most commonly used indices obtained by a ratio where the numerator represents the result of normal operations, while the denominator is made up of investments in the core business net of accumulated depreciation and any provisions. The ROI is an indication of the degree of efficiency in the use of the resources available to the company to produce profits through its characteristic activity. ROI is also obtained from the product of ROS and the sales turnover rate. ROI can also be used as a factor in obtaining ROE.

- Return on sales (ROS) indicator

ROS provides an indication of sales profitability. It is one of the most significant indexes to obtain information about the efficiency of a company. It is a ratio where the numerator is composed of the Earnings Before Interests and Taxes, i.e. the result of the operating area before the deduction of interest and taxation. By multiplying the ROS by 100 one gets the income produced by the operational

management for every 100 euro of sales volumes. Being so closely linked with turnover and business operations, it is one of the most useful indices for the analyses that will be produced, along with the ROA.

- Return on Equity (ROE) indicator

ROE expresses the profitability of equity capital and is used to verify the rate of return on risk capital. It is a global index, which provides a summary of the overall economy of the company, assessing how own resources have been managed in order to increase profits. This indicator is perhaps the least sensitive to the dynamics related to working capital, but it should be taken into account because it offers an overview of the performance of the company.

- Indicator of a financial sustainability (PFN/EBITDA)

The index derived from the ratio between the net financial position and the Earnings before Interest, Taxes, Depreciations and Amortization expresses the amount of time it would take for the company to use the entire EBITDA for the sole purpose of repaying financial debts. The greater the result of this indicator, the greater the financial risk of the company, as it demonstrates that it does not have sufficient flows produced by the operating area to allow a short or medium-term coverage of financial liabilities. On the contrary, the smaller the result of the relationship, the greater the ability to produce wealth and therefore sufficient financial resources to meet its commitments. Usually this index is used together with the index "Net financial interests/EBIT" to measure the financial risk.

A major difficulty with this indicator is that some components of NFP and EBITDA are not clearly indicated looking at the balances, without supplementary information or a due diligence (i.e. overdue debts, amount of factoring and financial leasing, extraordinary revenues). Nevertheless, this indicator gives a quick signal of the company's riskiness and seemed to be a valid means of comparison for the analysis of working capital.

#### 4. RESEARCH METHODOLOGY

The survey is the main tool used for the data collection and is structured on three levels and on the basis of three questions:

1. Does Working Capital Management affect short-term profitability?
2. Is this impact the same in SMEs and large enterprises?
3. Does this impact depend on the sector in which the companies operate?

By verifying these three hypotheses, we investigated by this research, for the first time, an important sector of the Italian SME using the size and product sector of the companies taken into consideration as additional filters, with a span of time that allows reports to be made on the basis of different intervals.

In order to ensure that the survey basin is large enough to be meaningful, quantitative data were collected from an online database, AIDA, for the duration of the previously established time horizon (2008-2015). These data are collected for all database holdings in the dairy, confectionery, flour and bakery industries.

Once the companies were divided between SMEs and large companies, a descriptive statistical analysis was carried out, which provides a framework of the sector averages for each of the indicators chosen as determining factors and serves to give an overview of the trends of the period.

Subsequently, the indicators relating to working capital management were collected and a score assigned to each company for each year on the basis of these indicators. At this point, the presence of a statistical correlation between the variables related to the NWC and the main profitability indicators previously selected can be verified.

The results produced should be able to give an answer to the three questions mentioned above regarding the Italian SME in the years after 2008.

AIDA, an online database, was used to collect the data. AIDA is a tool of Bureau van Dijk, a company specializing in the production of products containing company information at national and international level. AIDA (Computerized Business Analysis) is a factual database containing structured information on more than 700,000 companies operating in Italy. The data are in historical series, up to a maximum of 10 years and the information is constantly updated. The contents are the complete financial statements, in accordance with the format of the Fourth EEC Directive, the sectors of economic activity, the complete personal data and a plurality of other information of Italian capital companies.

The research carried out was carried out using ATECO codes, which serve to classify economic activities, to allow the results to be filtered by type of business activity. This classification is adopted by ISTAT for national economic statistics and is optimal for this analysis as it is based on the type of activity carried out by the companies and not on what they produce. In this way, companies grouped under the same code can be considered homogeneous in terms of production processes and therefore the need for supply, production cycle and type of plant. Consequently, this subdivision makes it possible to consider the data of each sector as pure exogenous variables, since they are all subject to the same influences from the external environment.

With regard to this analysis, in particular, the sectors covered by the whole of code 10, which groups together food businesses, were examined. Specifically:

- Code 105 (dairy industry) has been used as a filter for the dairy sector;

- Codes 1072 (production of rusks and biscuits; production of preserved pastry products) and 1082 (production of cocoa, chocolate, candies and confectionery) were used to group companies in the confectionery sector;

- Codes 1071 (production of bread; fresh pastry goods) and 1073 (production of pasta, couscous and similar farinaceous products) were used to select enterprises for flour and bakery products.

In addition to the codes, two conditions have been used as additional filters to search for data relating to each sector: the first is represented by the availability of the balance sheets, the second by the presence of known values relating to the NWC. Table 1 depicts a summary of collected data.

**Table 1.** Sample of available data and search criteria

| Terms and conditions  | DAIRY              |                            | SWEETNESS          |                            | FLOUR AND BAKERY PRODUCTS |                            |
|---|--------------------|----------------------------|--------------------|----------------------------|---------------------------|----------------------------|
|   | Total availability | progressive search results | Total availability | progressive search results | Total availability        | progressive search results |
| Years with available budgets: 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015  | 1.247.546          | 1.247.546                  | 1.247.546          | 1.247.546                  | 1.247.546                 | 1.247.546                  |
| ATECO: 1072 - Production of rusks and biscuits; production of preserved pastry products, 1082 - Production of cocoa, chocolate, candies and sugar confectionery | 2.247              | 1.961                      |                    |                            |                           |                            |
| ATECO: 105 - Dairy industry   |                    |                            | 908                | 781                        |                           |                            |
| ATECO: 1071 - Manufacture of bread; fresh pastry goods and cakes; 1073 - Manufacture of pasta, couscous and similar farinaceous products                        |                    |                            |                    |                            | 5.271                     | 4.061                      |
| Business Cycle Duration (days): All companies with a known value 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008. For all selected years                         | 44.380             | 215                        | 44.380             | 101                        | 44.380                    | 101                        |
| <b>Total</b>  | <b>215</b>         |                            | <b>101</b>         |                            | <b>93</b>                 |                            |

Not all the companies have data on the annual financial statements of all years on the database, and for the present study it was necessary to maintain a constant number for the whole period under review. In this way you it is guaranteed to have all the data available for the study to be complete. Out of a total of 1,247,546 companies with data on financial statements for the period 2008-2015, only 44,830 have the value of the NWC for all the years under consideration. The results therefore include an analysis of 93 companies for the confectionery sector, 215 for the dairy sector and 101 for flour and bakery products.

#### 4.1. Statistical data analysis

The first operation carried out on the collected data was to subdivide, using the selection criteria for SMEs of the European Commission to separate large enterprises from SMEs. Since the figures for eight years had to be taken into account, a choice had to be made as to the number of years that the limits had been exceeded, so that the company could no longer be regarded as a SME. The criterion adopted is as follows: if the company exceeds the SME criteria for more than three years, then it is considered as a large enterprise; if there is an excess for less than three years, it is considered as an SME. The result is depicted in table 2.

Table 2. Breakdown of large enterprises and SMEs

|          | DAIRY | SWEETNESS | FLOUR AND BAKERY PRODUCTS |
|----------|-------|-----------|---------------------------|
| Large E. | 35    | 24        | 15                        |
| SME      | 180   | 69        | 86                        |
| total    | 215   | 93        | 101                       |

For each category of each sector, the basic elements of the descriptive statistics were calculated: average, maximum, minimum, median and standard deviation, with reference to the main indicators of both circulating and profitability. For the sake of synthesis, only the arithmetic mean is described in this paper, considering that the other elements do not play a key role in modifying the results of the analysis. These data are depicted in the following table 3.

Table 3. Arithmetic mean of collected data

|                      | DAIRY   |        | SWEETNESS |        | FLOUR AND BAKERY PRODUCTS |        |
|----------------------|---------|--------|-----------|--------|---------------------------|--------|
|                      | Big     | SME    | Big       | SME    | Big                       | SME    |
| Turnover/million EUR | 180.323 | 16.238 | 291.083   | 20.052 | 258.858                   | 12.947 |
| CDT                  | 66,34   | 84,07  | 114,85    | 111,45 | 67,86                     | 96,39  |
| ToS                  | 50,67   | 64,39  | 38,87     | 39,75  | 27,80                     | 26,50  |
| DTD                  | 76,55   | 97,65  | 118,94    | 112,45 | 106,21                    | 114,31 |

|     |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|
| BCD | 59,66 | 74,43 | 78,43 | 86,51 | 10,98 | 36,26 |
| ROA | 5,30% | 3,37% | 5,00% | 4,35% | 5,32% | 3,03% |
| ROI | 6,66% | 5,31% | 8,70% | 6,94% | 8,63% | 5,97% |
| ROS | 3,84% | 2,30% | 4,47% | 3,68% | 5,30% | 2,75% |
| ROE | 6,66% | 4,50% | 5,50% | 4,63% | 6,05% | 1,99% |

In terms of turnover, the confectionery sector has the highest sales in SMEs, averaging around 20 million, followed by around 16 million for milk and almost 13 million for flour products. As far as large companies are concerned, the same order is not followed, but it is urgent to underline the presence of two enormous companies in the confectionery sector (Ferrero) and in the flour products sector (Barilla), which bring their averages to be higher than in the dairy sector, where the largest companies are not so global and known (e.g. Granarolo and Parmalat).

Credit deferral times (CDT) are particularly efficient for dairy companies, although they show that large companies are reimbursed almost 20 days earlier than small to medium sized companies. The same dynamic is found in flour products, where SMEs have to wait 96 days, almost 30 days longer than large companies. While the two sectors offer similar values for the latter (66 and 68), the same cannot be said of SMEs, which receive payments in the milk sector more than ten days earlier than the flour sector. The confectionery segment, in which both large and small companies have to wait more than 110 days for loans to be repaid, should be treated separately, with a reversal of the trend whereby larger companies have longer times than SMEs. Being such a substantial difference with respect to other sectors, but with constant values despite the size of the companies, it can be assumed that it is a physiological factor of the type of activity.

Paying attention to the timing of stockpiles (ToS) we can see that for the confectionery and flour sectors, the differences between SMEs and larger companies are minimal (39 and 40 days for confectionery and 28 and 27 for flour) and particularly small, which is not surprising if we consider the fact that they are industries that produce perishable goods. On the contrary, the dairy sector again has similar timescales between SMEs and large companies, but much longer. This is mainly due to the nature of the output of these companies: they are mainly cheeses, a product that allows a longer-term preservation than other food products.

As far as the time required to defer trade debts (DTD) is concerned, it can be seen that for confectionery and flour products the number of days is essentially the same between large companies and SMEs (119 and 112 for confectionery, 106 and 114 for flour products), always around four months. It is very interesting to point out that in the confectionery industry, the times of larger companies exceed those of SMEs, as the former use bargaining power to their advantage, so as to establish longer delays and self-finance through them. It is also true that in the confectionery sector, the days of credit deferment and those of debt are practically the same (115 and 119 for large companies, 111 and 112 for

SMEs), while in the other sectors, the timescales for debts are considerably longer, allowing all types of company to finance themselves in this way.

In terms of business cycle duration (BCD), the flour products sector emerges as the most efficient, with a value of 11 days for large companies and 36 days for SMEs. The other two segments show very different results, ranging from 60 days for large dairy farms to 87 days for SMEs in the confectionery sector.

The first of the profitability indicators, ROA, shows a picture of homogeneity in terms of distribution, in fact, SMEs in all three segments have values lower than the large ones, and the values of larger companies (5.3% for milk, 5% for confectionery and 5.3% for flour). The behavior of SMEs in the milk and bakery sectors is broadly similar (3.4% and 3%), while in the confectionery sector the value is higher and closer to that of the benchmark (4.4%).

The ROI shows very different results: the trend of the confectionery industry to have excellent performance is confirmed, especially with regard to SMEs (6.9%, compared to 5.3% for milk and 6% for flour), while for large companies it is practically equaled by the performance of flour (8.7% and 8.6%). The dynamics of dairy products deserving a more in-depth analysis, which have the same profitability for large companies as for SMEs in the other segments (6.7%), well two percentage points lower than for other larger companies. Dairy SMEs also show a low return on investment, albeit at a shorter distance from the others considered.

The analysis of the results offered by ROS confirms the trend of lower profitability of dairy products compared to other sectors, with lower averages for both SMEs and large companies. In this case, the performance of the larger companies in the farinaceous sector is better than that of the confectionery sector (5.3% and 4.5%) and the trend is the opposite for SMEs (2.8% and 3.7%). This type of index is one of the most interesting in relation to our analysis and so low results for dairy products will have to be considered in the interpretation of the final results.

ROE reverses the analyses made so far, seeing dairy products as the best performance for large companies (6.7% compared to 6% for flour and 5.5% for confectionery) and a result for SMEs on the same level as those of confectionery (4.5% and 4.6% respectively). It can be inferred that this index, which is more global in nature, compensates for the reduced performance of return on investment and sales by taking advantage of other sources. For the other segments, yields for large companies are sufficiently similar, fluctuating over a period of one percentage point. For SMEs, on the other hand, the result for bakery products companies is very low, at just 2%, less than half that of other sectors. This is certainly due to low profitability of assets (ROA was 3%) and sales (ROS was 2.8%), but it is also clear that there is a gap in the overall result not included in the calculation of other indicators, such as the degree of erosion of operating income and the leverage ratio.

## 5. SCORING AND DISCUSSION

The objective of this analysis is to produce clear and concise results from the correlation between the trend in operational working capital and the main profitability indicators. Although it has selected six main variables on which to base its examination of the trend of working capital and five performance indices, the correlation of this plurality of data would produce a very high number of results, making the comparison infra-dimensional and infra-sectoral. Consequently, a way was sought to modify the process in order to make the mechanisms in place more complex, but an output that would allow conclusions and comments to be drawn on the subject.

The solution we have chosen to use is to create a scoring system for the elements of the circulating currency, through which to assign a real "vote" to each company for the value of each indicator for each year. The sum of these scores should be symptomatic of the company's ability in working capital management.

First of all, an Excel file was produced for each dimensional category of each sector, with a sheet for each year of the time horizon. In each of these sheets, the data of each company relating to the circulating indicators have been collected.

Once the data had been prepared in this way, the average, maximum and minimum values were calculated. These terms will be used for the construction of the scoring system.

The requirements underlying the choice of the number of possible votes for each indicator were those of containing the computational burden at levels manageable by Excel, while providing a sufficiently sensitive assessment that could be a good measure of the ability shown by the company in optimizing the circulating. It was therefore decided to divide the amplitude of the range of values into eight, keeping the average as the needle of the balance. Constant incremental factors were then calculated, one positive and one negative, which added (or subtracted) four times to the average.

Eight intervals are thus created which correspond to an evaluation expressed by integer values 1 to 8. Not for all the variables taken into consideration is the assumption that the closer the data is to the maximum, the better is working capital management. As a result, a case-by-case evaluation was carried out, which determined for which variables to follow an increasing order in the scores and for which to follow a decreasing order. The first category includes the degrees of net working capital and of working capital receivable on turnover, together with the deferral times in the payment of trade payables. In the second there are the remaining ones, i.e. the deferral times of receivables from customers and stock in stock and the average duration of the commercial cycle.

Once this part was complete, it was enough to have an automated Excel formula assign the score according to the interval in which each piece of data fell, thus creating a timely evaluation. At this point it was assumed that all the indicators had the same importance, so we applied a unit weighting

weight to each and created the final score for each year of each company by simply adding the votes obtained on the result of each indicator, as in table 4.

Table 4. Score assignment to large flour and bakery companies (year 2008)

|            | Active circ. | NWC | CDT | ToS | DTD | BCD | SCORE |
|------------|--------------|-----|-----|-----|-----|-----|-------|
| Company 1  | 2            | 3   | 7   | 4   | 3   | 5   | 24    |
| Company 2  | 4            | 3   | 5   | 8   | 1   | 1   | 22    |
| Company 3  | 5            | 8   | 2   | 8   | 1   | 8   | 32    |
| Company 4  | 7            | 5   | 8   | 4   | 6   | 3   | 33    |
| Company 5  | 4            | 2   | 7   | 5   | 2   | 7   | 27    |
| Company 6  | 5            | 6   | 8   | 7   | 8   | 6   | 40    |
| Company 7  | 1            | 6   | 6   | 1   | 5   | 6   | 25    |
| Company 8  | 5            | 4   | 2   | 1   | 4   | 1   | 17    |
| Company 9  | 5            | 5   | 3   | 7   | 4   | 5   | 29    |
| Company 10 | 2            | 6   | 3   | 6   | 4   | 5   | 26    |
| Company 11 | 7            | 2   | 8   | 4   | 3   | 1   | 25    |
| Company 12 | 5            | 4   | 1   | 6   | 8   | 5   | 29    |
| Company 13 | 8            | 4   | 2   | 1   | 5   | 2   | 22    |
| Company 14 | 1            | 7   | 3   | 6   | 5   | 5   | 27    |
| Company 15 | 3            | 1   | 4   | 2   | 8   | 7   | 25    |

The operation was carried out for the whole time horizon and for both the dimensions of each sector, thus creating summary sheets such as the one in Table 5, here given as an example.

Table 5. Total Scores on Large Enterprises in Flour and Bakery Products (2008-2015)

|            | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------|------|------|------|------|------|------|------|------|
| Company 1  | 24   | 21   | 24   | 28   | 30   | 31   | 22   | 24   |
| Company 2  | 22   | 30   | 34   | 23   | 24   | 20   | 38   | 22   |
| Company 3  | 32   | 26   | 34   | 31   | 24   | 24   | 24   | 23   |
| Company 4  | 33   | 39   | 21   | 18   | 22   | 20   | 23   | 18   |
| Company 5  | 27   | 26   | 28   | 31   | 36   | 31   | 29   | 28   |
| Company 6  | 40   | 37   | 36   | 36   | 26   | 28   | 26   | 31   |
| Company 7  | 25   | 27   | 29   | 24   | 31   | 27   | 27   | 32   |
| Company 8  | 17   | 35   | 25   | 17   | 21   | 19   | 18   | 16   |
| Company 9  | 29   | 24   | 22   | 22   | 23   | 20   | 29   | 21   |
| Company 10 | 26   | 29   | 24   | 20   | 26   | 25   | 42   | 29   |
| Company 11 | 25   | 23   | 34   | 27   | 33   | 34   | 19   | 18   |
| Company 12 | 29   | 32   | 30   | 30   | 29   | 31   | 31   | 30   |
| Company 13 | 22   | 27   | 26   | 24   | 22   | 28   | 26   | 25   |
| Company 14 | 27   | 33   | 26   | 29   | 25   | 25   | 27   | 26   |
| Company 15 | 25   | 25   | 25   | 27   | 27   | 26   | 23   | 27   |

### 5.1. Correlation

The correlation indicates the degree of the relationship between variables, for example X and Y (Taylor, 1990). If Y tends to grow as X grows, the correlation is positive or direct, if Y tends to decrease as X grows, the correlation is negative or reverse. If a variation of X corresponds to a variation in equal entity and direction of Y, the two variables will have a perfect correlation, with a correlation coefficient of Pearson  $\rho = +1$ . If instead to a variation of X corresponds a variation in equal entity but opposite of Y the two variables will still have a perfect correlation, but with a correlation coefficient of Pearson  $\rho = -1$ . If the two variables have two distributions such that there is no relation between the points generated by one and the other, they are said to be in-correlated and Pearson's correlation coefficient will be  $\rho = 0$ . The Pearson-Bravais correlation coefficient is calculated as the ratio between the covariance of the two variables and the product of their mean squared deviations, or standard deviations.

The calculation of the correlation was iterated to calculate the relationship between the NWC score and the various profitability indicators, using the individual data of each company as a distribution, over time horizons of 1, 2 and 3 years at a time.

Table 6 shows an example of the results of the correlation between the NWC score and the ROA over a one-year time horizon for large flour and bakery companies. It should be noted that the values in bold have a statistical significance, so they are positive correlation index, the numbers in red are negative correlation index and the rest show in-correlation.

| $\rho$ one year | ROA   |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
|                 | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
| NWC 2008        | -0,22 | -0,15 | 0,08  | -0,17 | 0,04  | -0,22 | -0,19 |
| NWC 2009        |       | -0,44 | -0,44 | -0,42 | -0,33 | -0,54 | -0,35 |
| NWC 2010        |       |       | 0,44  | 0,45  | 0,31  | 0,20  | -0,02 |
| NWC 2011        |       |       |       | 0,29  | 0,40  | 0,19  | 0,10  |
| NWC 2012        |       |       |       |       | 0,11  | 0,27  | 0,30  |
| NWC 2013        |       |       |       |       |       | 0,20  | 0,10  |
| NWC 2014        |       |       |       |       |       |       | 0,01  |

In order to be able to comment on the results obtained, a summary document was produced which gave the possibility to examine, for each time horizon, the correlations between the profitability indicators and all the sectors taken into consideration. This document is too large to be inserted here as a table, so only synthetic discussion will be reported. The behavior of the variables in the various cases examined was not homogeneous and standardized, but peculiar in each of the elements

examined. Consequently, we are going to observe the results of the correlations for each dimensional category of each sector.

Dairy SMEs, except in very rare cases, show in-correlation with all profitability indicators, this result is evident both graphically by looking at the correlation tables. Another useful tool, however, may be the dispersion graphs, in which it is noted that the variables of this cluster are particularly widespread and do not make it possible to find a trend line that expresses a link between their NWC score and performance indicators. Evidence of all this is found in the Chart19, which shows the dispersion of the values of the score of the NWC for the year 2009 and the ROA for 2010. This group of values was chosen because it shows one of the correlation coefficients closest to zero in the study, i.e. 0.004. This representation clearly shows a flat trend line documenting that the two variables are not correlated. For comparison, let's create the same representation in Figure 20 for the category with the highest correlation, the large confectionery companies, which between the NWC 2008 and 2013 and the ROA of the following years have a coefficient of respectively 0.444 and 0.516. The differences are considerable in the width of the dispersion and in the inclination of the trend lines. It should be stressed, however, that the in-correlation at the statistical level, does not imply that there is independence, but simply that there is no direct relationship between the two variables.

Large dairy companies have a negative correlation with ROA and ROI over all time horizons considered. The behavior towards ROS and ROE is almost always in-correlation, but not in longer-term comparisons, where they confirm the negative trend. There is an indirect correlation, however, also towards NFP/EBITDA in most cases, a factor that seems to demonstrate a slight link at least from the debt point of view.

The SME in the confectionery sector offers more satisfactory results than in the previous sector, in fact, in many of the cases examined, there is a direct correlation with ROI and an indirect correlation with NFP/EBITDA. This result is not equaled in the cases of ROA, ROS and ROE, with which it sometimes emerges in-correlation, or even a significant and negative result, as in the case of one-year ROE.

The large confectionery companies, on the other hand, represent the success of the assumptions underlying this study, as they have a strong correlation with the main profitability indicators. This relationship is evident from the observation of the Graph20, in which the linear trend lines have a clear positive inclination.

As regards SMEs in the last segment, flour and bakery products, there is a strong negative correlation with ROS at all-time horizons considered. The other indicators also offer unsatisfactory results, as they show clear signs of in-correlation or indirect relation. The only positivities found refer

to NFP/EBITDA, a variable that is characterized by a different logic, according to which a higher value is higher than a negative signal, therefore it is confirmed what has already been seen in other cases.

For the first few years of operation, large flour companies have strong negative correlations with all profitability indicators and positive correlations with NFP/EBITDA. However, there is a change from 2010, when all indicators change radically, giving results in close relation with the changes in the NWC. This trend ceases to provide significant signals in the medium-term observation, based on a time horizon of three years. It follows that the influence of the NWC on performance exists, but only in the short term.

## 6. CONCLUSIONS

The main objective of this analysis was to verify whether Working Capital Management has an influence on the performance of Italian SMEs, focusing in the food sector.. In more detail, the research was based on these three questions, corresponding to as many levels of investigation:

1. Does Working Capital Management affect short-term profitability?
2. Is this impact the same in SMEs and large enterprises?
3. Does this weight depend on the sector in which the companies operate?

To satisfy these questions, an analysis was carried out based on the data collected by the AIDA database, which features the financial statements of Italian companies, relating to the variables of working capital, business cycle and performance. This information has been filtered to create six clusters, representing SMEs and large companies in each of the three sectors considered: dairy, confectionery, flour and bakery products. Through a scoring operation and a statistical correlation, results were obtained, which represent the Pearson-Bravais correlation indices between NWC and profitability indicators over different spans of time (one, two and three years).

It is now possible to give answers based on the results obtained. Surely the NWC has a correlation with short-term profitability, as is evident from the fact that in many cases there is some kind of significant relationship, whether direct or indirect. Also with regard to the impact of the dimension on the size of this link, it can certainly be said that it has an impact, since within all sectors large enterprises and SMEs behave differently. Finally, it has been shown that the result of the correlation depends on the sector, since each of the segments of the food industry considered behaves in its own right.

Unfortunately, if it is undeniable that the NWC has an influence on the profitability of the company by observing the complete sample, as far as SMEs are concerned, there is often an in-correlation between the trend in working capital and the business cycle and the main performance indicators. This unsatisfactory result may be due to the particular conditions of the macroeconomic

environment in the years under consideration, in particular the reduction in consumption and average family expenditure, which have aggravated a condition already made precarious by an exponential increase in suffering and, as a result, bankruptcies and liquidations. These conditions are due to the crisis that has affected global markets since 2008, and the resulting credit crisis in subsequent years. It should also be considered that in-correlation results may be due to the typical characteristics of data dispersions. In fact, a greater variability in values can invalidate the result of correlation studies, providing results of in-correlation even where there is no independence between indicators.

Other factors that may have limited the study are without recourse and the availability of complete data on the database used. With regard to the management of without recourse, reference is made to a type of factoring that "lightens" the quantity of receivables in the company portfolio, thus affecting the correctness of the data relating to working capital. It has been used extensively during the years within the time horizon, as this has ensured a better valuation of the company by banks and lenders, making the business situation seem more prosperous. Unfortunately, the data on the use of without recourse would have to be requested individually from each of the companies included in the sample, through questionnaires or direct queries, which would have taken much longer and would have reduced even more the number of companies taken into account. On the other hand, as far as the completeness of the database used is concerned, of the 8,426 companies operating in the three sectors considered, only 409 had data relating to the entire time horizon and with available values of the size of the business cycle. This sample, however large, corresponds to about 5% of the total and may not represent the totality of the data distribution.

Consequently, we can conclude by stating that, despite the fact that in the period 2008-2015 the results relating to the SME are mainly in-correlation, with different market conditions, this result may vary, since the environment has suffered very specific shocks that are unlikely to be repeated in identical ways within another time horizon. A further factor that

The fact that large companies in all the sectors concerned have produced significant direct or indirect correlation results contributes to the formulation of this observation. These implications, once it has been established that large companies are characterized by greater solidity, brand image and bargaining power and therefore greater resistance to the crisis, suggest that even SMEs in a context different from that observed can achieve the same results.

Future researches can investigate even the relations between NWC and volatility of turnover and /or its growth or decrease in the same or other sectors.

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## THE ILLITERACY PRIDE AND THE FINANCIAL PREJUDICE

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### ABSTRACT

After the economic crisis of 2008-2009, the increase of investor Financial Literacy (FL) has become a public policy objective to improve welfare through better decision making.

The aim of this paper is to describe the impact of FL on investors' choices. We present a theoretical approach that will require – in a future – an application to test the model proposed.

During the last few decades, the attention to Financial Literacy has produced a growing interest to explore the link between Financial Literacy and Financial Behaviour. However, the first consequence of this attention is that there is no clear definition of Financial Literacy. Moreover, the review of the literature shows a fragmentation, and this has prevented the formulation of a unified point of view on FL and investors' behaviour relation. For these reasons, this topic requires new and deeper studies.

In this paper, we propose a theoretical model to study if financial education and financial literacy influence the diversification strategies in financial choices. For this reason, we apply a multi-criteria analysis that can integrate the various aspects into a uniform evaluation. In particular, our model implements the AHP method.

Following the model suggested by Rossi et al (2020), for evaluating the best investment choice we analyse three criteria: the return of the stock market, the performance of government bonds and the calendar effects in the financial markets. Then, in order to test if Financial Education have a positive impact on decision-making investors' process, we will submit a questionnaire to two groups of financial operators: a financial illiterate operators group (illiterate classroom) and a financial literate operators group (literacy classroom). Applying the same AHP model to both groups of operators may allow us to verify the influence of financial education and/or financial literacy on the investment choice.

*Keywords: financial literacy, AHP method, investors' behaviour, cognitive-behavioural distortions,*

## INTRODUCTION

Recent globalization and deregulation processes have generated a new phenomenon: the financialization of the economy; this means the growth of the weight of financial assets within the economic context. This process begins to take shape when the idea of generating financial income seems to become much more profitable than producing value added through the company's traditional production processes (Gallino, 2005). A tension arises between finance and production: to innovate and experiment with new production opportunities, companies begin to need long-term financing, the so-called "patient capital" that traditionally was seen in collaborative relationships between banks and companies as well as between companies and workers (Bagnasco et al., 2012). National systems thus begin to suffer "the intrusion of financial and capital markets focused on monetization and short-term profits" (Ingham 2008: 235): impatient capital come in the scene and it speculates and introduces new forms of fragility into the system (e.g. derivatives and futures).

In this complex and irreversible framework, there are many reflections that have to do with the individual behaviours of individual financial operators (ethical, value, rational orientations) but equally strong is the question of the levels of competence (skills) and knowledge which financial operators have (or should have). In Italy, the findings of CONSOB and the Bank of Italy shown that the level of economic and financial knowledge is particularly low, even if simple logical and mathematical notions and skills are considered.

In a hyper-technological society, characterized by increasingly complex financial markets and governed by uncertainty and instability, financial knowledge has a decisive influence on the attitude towards risk and on the investment choices to be adopted.

People are increasingly alone and isolated in their social relationships and this, in some aspects, is even more true in the economic and financial choices that can hide dangerous pitfalls. These can lead to irrational and / or wrong choices. We have cognitive-behavioural distortions that sometimes make us make bad decisions; the most common is being much more oriented to the present than to the future, and therefore making choices that favour the short-term horizon over the medium and long-term one. This behaviour often leads to underestimations. Another of the distortions is that we tend to overestimate our skills (the so-called overconfidence) which sometimes leads us not to ask when we should ask experts instead.

In Italy, has shown by the S&P Global FinList Survey (2014), only 37% of the population knows some basic concepts of financing investments. Furthermore, although it is clear that if you choose an investment with a very high return, the risk increases exponentially, in reality the investor continues to believe in the chimera of high returns with very low risk. Although this is a problem common to other countries, in Italy the average level of knowledge is worrying. If we consider basic financial

knowledge, Italy is closer to the BRICS (Brazil, Russia, India, China and South Africa) than to the G7 countries.

These considerations, combined with the structural changes in the welfare systems, in the labour market, in the financial markets, underline the problem of financial education and its diffusion<sup>6</sup>. It is evident that financial knowledge is important because it influences the financial choices. It is necessary to achieve the basic skills that can help in the decision-making process.

On average, there is a socio-cultural problem concerning low knowledge on these issues. The consequence is generalized ignorance, mixed with feelings of distrust and laziness. All obstacles to be removed, because financial ignorance carries significant costs. Consumers who fail to understand the concept of interest compounding spend more on transaction fees, run up bigger debts, and incur higher interest rates on loans (Lusardi and Tufano, 2015; Lusardi and de Bassa Scheresberg, 2013). They also end up borrowing more and saving less money (Stango and Zinman, 2009). Meanwhile, the potential benefits of financial literacy are manifold. People with strong financial skills do a better job planning and saving for retirement (Behrman et al., 2012; Lusardi and Mitchell, 2014). Financially savvy investors are more likely to diversify risk by spreading funds across several ventures (Abreu and Mendes, 2010).

Therefore, the purpose of financial literacy is to direct social actors (financial and non-financial operators) to virtuous behaviour: to distinguish between risks and opportunities; to reduce over-indebtedness risks, to improve savings choices, and to help reduce inequalities.

## LITERATURE REVIEW

After the economic crisis of 2008-2009, the increase of investor Financial Literacy (FL) has become a public policy objective to improve welfare through better decision making. In all developed countries, policymakers consider FL as solution to increasing bankruptcies. This could be particularly true because the expansion of financial markets has provided opportunities for people to invest in a variety of securities and financial instruments. In fact, today the volume and percentage of people who invest in stock market securities have risen sharply in recent years (Dreman et al, 2001), suggesting that there are a growing number of retail stock market investors.

As scientific result, the attention to Financial Literacy has produced a growing interest to explore the link between Financial Literacy and Financial Behaviour. However, the first consequence of this attention is that there is no clear definition of Financial Literacy. In fact, despite the proliferation of researches on Financial Literacy, "no consistent definition or empirically validated measures of

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<sup>6</sup> An old English proverb said "don't put all your eggs in one basket". In reality, the common approach for the diversification of investments in the financial field would not seem pursued

Financial Literacy exist” (Schmeiser and Seligman 2013: 243). The general confusion could be synthetize by Redmund (2010): “Is Financial Literacy the right phrase, though, to describe what a consumer needs to effectively adapt to changing needs, life events and economic forces? The question is moot” (277).

Despite all, from a decade Financial Literacy is consider synonym of the ability to understand and effectively use knowledge and various financial skills to manage financial resources, ideally for a lifetime of financial stability (World Bank), and it is consider synonym of Financial Education (FE). “The terms Financial Literacy, Financial Knowledge, and Financial Capacity are often used interchangeably” (Harrison, 2016: 1).

However, more specifically, FE could be defined as “the process by which financial consumers/investors improve their understanding of financial products and concepts, and through information, instruction, and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being” (OECD, 2005: 4).

One of the first study on FL could be dated at the end of Fifties (Jelley, 1958). However, the most important studies were realized in the 2000s (Braunstein and Welch, 2002; Fox et al., 2005; Martin, 2007; Kozup and Hogarth 2008; Hastings et al., 2013).

Our analysis focuses on Financial Literacy and Investor Behaviour. This topic is most important in a context of growth of financial products available. Many of these studies concerned Financial Literacy Education (FLE) of a group of students. Generally, FLE programs assumed to improve investor behaviour in relation to financial products and services (West, 2012). This theme is complex and this is demonstrated by the fragmentation of the literature. In this paper, we realize a brief general literature review on FE and investors’ behaviour (Table 1).

| Relation between FL and Investors’ Behaviour | Articles   |
|--|--|
| Positive relations                           | Bixler and Squires, 1998; Bernheim et al., 2001; Tennyson and Nguyen, 2001; Gross et al., 2005; Wiener et al., 2005; Lusardi and Mitchell, 2008; Van der Crujisen et al., 2011; Disney and Gathergood, 2013; Cavezzali et al., 2015; Hsiao and Tsai, 2018; Riitsalu and Murakas (2019); Artavanis and Kara, 2020; Philippas and Avdoulas, 2020 |
| Negative relations                           | Kim et al., 2003; de Meza et al., 2008; Mandell, 2009; Willis, 2009; Choi et al., 2010; West, 2012;  |

Table 1. Studies on FL and Investors’ Behaviour: a comparison

Source: authors’ calculation

A branch of studies underlined a positive relationship between Financial Literacy and Investors’ Behaviour. Bernheim et al. (2001) conducted one of the first studies on Financial Literacy Education (FLE).

The analysis is based on a unique cross-sectional household survey fielded in November 1995, and 2000 surveys were completed. They identifies a positive relation between the role of financial education at high school level and higher subsequent savings rates.

Gross et al. (2005) analyse a pilot financial literacy education course for Northeastern law students. The study involved focus groups and a pre- and post-test questionnaire that was conducted to test its usefulness. The article also describes adaptations made to the course following the study and makes suggestions for course replication. Gross et al. (2005) sustain that teaching financial literacy to students has measurable benefits: "...initial results here and other empirical work on financial literacy education demonstrate that courses such as this lead to longer-term retention of knowledge and positive changes in consumer attitudes and behavior..." (22).

Similar results was highlighted from different scholars (Tennyson and Nguyen, 2001; Wiener et al., 2005; Disney and Gathergood, 2013). Wiener et al. (2005) conduct a study on financial education-training program for residents of New York who had filed for bankruptcy. Authors divides 400 people in three groups: trained debtors, untrained debtors, and non-debtors. Their results confirmed previous studies (Bixler and Squires, 1998; Tennyson and Nguyen, 2001) and they showed that trained debtors' financial skills and knowledge increased after training compared with other two categories. More specifically, "trained debtors showed more negative attitudes towards unnecessary spending compared with the other two groups and reported less intention to buy than non-debtors reported" (Wiener et al., 2005: 347).

The impact of FL was studied during the economic crisis of 2008. Van der Crujisen et al. (2011) highlighted that since the onset of the financial crisis consumers with more understanding of banking supervision and insurance have more extensively diversified their asset portfolios across banks.

The study of consumer credit users was the focus of Disney and Gathergood (2013). They studied a representative sample of UK consumer credit users. This research showed a clear relationship between FL and the composition of household consumer credit portfolios. Results from the statistical analysis showed that households with household heads who perform poorly on the financial literacy questions hold a greater fraction of high cost credit in their portfolios. In particular, "We show that individuals who borrow on consumer credit exhibit worse financial literacy than those who do not" (Disney and Gathergood, 2013: 2246).

Cavezzali et al. (2015) realised an investigation to study if financial education and financial literacy influence the risk taking of non-professional investors and the diversification strategies pursued. Authors submitted a questionnaire to 711 US residents. The results highlighted that financial education prevents financial illiteracy and changes the investment process of investors. Cavezzali et al. (2015) – using metric produced by Lusardi and Mitchell (2008) – demonstrated that financial

literacy, does not influence risk taking, but financial education indirectly exerts its influence also on a simple diversification behaviour (immature diversification. "Whereas for uneducated investors there is no relationship between risk diversification strategies with both financial literacy and the main investor features, for educated investors financial literacy fosters such diversification behaviour" (Cavezzali et al., 2015: 121). Another important research was conducted by Hsiao and Tsai (2018). They realize a study to determine whether people with higher levels of FL are more likely to be active participants in the derivatives markets. The empirical results highlighted that "even after controlling for stock market participation rates, financial literacy represents a significant benefit to individuals since it helps them to lower the entry barriers to purchasing complex derivatives products" (Hsiao and Tsai, 2018: 15).

In addition, Riitsalu and Murakas (2019) realized a study on how subjective and objective knowledge of finance, behaviour in managing personal finances and socio-economic status affect financial safety. Four hypotheses are tested in multiple regression analysis. The main results are that subjective knowledge has a stronger relation with financial well-being than objective knowledge: "The results revealed that objective knowledge has a weaker correlation with financial well-being than subjective knowledge and behaviour do. Therefore, instead of promoting knowledge and skills alone, confidence and motivation to take action for improving financial well-being need to be in the focus of financial education initiatives" (Riitsalu and Murakas, 2019: 946).

Two recent studies (Artavanis and Kara, 2020; Philippas and Avdoulas, 2020) show that financial literacy is a key driver of financial well-being. More specifically, Artavanis and Kara (2020) engages in the theme of student debt by utilising a novel dataset of US students; instead, Philippas and Avdoulas (2020) examine the relationship between financial literacy and financial well-being using a primary dataset of Greek university students who lived through the financial crisis. Both studies highlighted that students with a deficit in financial literacy are more likely to have problems in a future loan payments, investments and all kinds of financial decisions.

Even if a huge part of studies underlined that, a financial illiteracy is associated with mistaken perceptions and wronged investment decisions, not all scholars are in line with these considerations. Kim et al (2003) realised a study to examine the relationships among credit counselling, financial behaviours, financial stressor events, perceived financial well-being. Authors collected data from clients of a large credit counseling organization. Results provide some evidence: "There were no direct effects of credit counseling and a debt management program on financial behaviors, financial well-being, or health after 18 months" (Kim et al., 2003: 85). At the beginning of 2000s, the Financial Services Authority (FSA) desired to improve the financial capability of the UK population. de Meza et al. (2008) analysed this strategy and they showed that financial capability involves knowledge and

skills, but what people choose to know and what they do with their knowledge may primarily depend on their intrinsic psychological attributes. Therefore, psychological rather than informational differences may explain much of the variation in financial capability reported in the FSA (2006) Baseline Survey. The Baseline Survey indicates that in most capability categories, scores improve with age and the level of general education. This is consistent with the importance of attitudes rather than teachable specific knowledge. the consequence for de Meza et al. (2008), is “if poor financial capability is mainly a matter of psychology, the information-based approach of the National Strategy for Financial Capability is likely to have only a modest effect in improving outcomes”.

Furthermore, Mandell (2009) recognises that financial behaviour seems to be positively related by FL, but he argues that the long-term effects of financial education on financial behaviour are less certain. Moreover, Willis (2009) asserts that the efficacy of FLE is based on ideology rather than evidence. Willis (2009) underlines that a critical analysis of the studies usually cited as proof of the effectiveness of FLE tells a number of shortcomings. Therefore, the second branch of studies highlighted the negative or very low relation between FL and investments decision. Choi et al. (2010). They realize a research with MBA students at the Wharton Business School. Authors evaluate why people invest in high-fee index funds. In their investigation, students allocate \$10,000 across four S&P 500 index funds and are rewarded for their portfolio’s subsequent return. Students fail to minimize fees. The research highlighted that investors made simple mistakes in choosing between index-tracking funds that differed only in their administration costs: “If financially sophisticated individuals do not make sensible decisions when confronted with apparently simple choices, the errors in financial decision making may not primarily be due to financial ignorance and lack of financial education but rather in individual cognitive biases” (Choi et al., 2010: 1405).

West (2012) highlighted similar results. This research show that the actions of individuals who are financially literate does not necessarily mean they will demonstrate good financial behaviour. “We propose that in order to improve the financial behaviour of consumers two critical areas need to be addressed. Firstly... highlight to individuals the psychological biases and limitations that they as humans, cannot easily avoid. Secondly the regulation of financial products sold to consumers needs alteration to meet the aim of protecting retail consumers from complex financial products that are confusing, ambiguous and inappropriate” (West, 2012: 1).

These studies show that there isn’t always a linear impact of FL and investors’ behaviour.

The literature review presented in this paper shows the complexity of this phenomenon that is attested by the fragmentation of the literature. This has prevented the formulation of a unified point of view on FL and investors’ behaviour relation, and, therefore, the relation between financial literacy and investors’ choices require new and deeper investigations.

## METHODOLOGY

The Analytic Hierarchy Process (AHP) method, introduced by Saaty at the end of seventies, analyses a decision problem by taking into account several qualitative and quantitative evaluation criteria (Saaty 1980, 1994). The use of AHP involves four steps. At first, all the elements of the problem are identified and hierarchically structured. Then, the elements of each hierarchical level are pairwise compared with respect to every element of the upper level. The second step represents the core of AHP: the decision maker assigns to pairs of elements of a level  $(x_1, x_2, \dots, x_n)$  a dominance coefficient  $a_{ij}$  which expresses the importance he/she attributes to element  $x_i$  over  $x_j$  with respect to a given criterion (element of the immediately upper level). Comparing  $n$  elements, a square matrix of order  $n$  is obtained. This matrix has 1 on the principal diagonal and is obviously reciprocal ( $a_{ji}=1/a_{ij}$ ). Saaty's fundamental scale is usually used to assign judgments. The way in which judgments are attributed is worthy of attention: a consistency check is required to ensure reliability of results (Amenta et al. 2020). After the above consistency check, the third step consists in the determination of a priority vector, derived from each pairwise matrix, in order to evaluate the relative importance of the elements of a single level. Various prioritization methods are proposed in literature (). Finally, a global priority vector is calculated by adding the products of relative priorities for the weights (priorities) of elements in upper levels. This vector provides the global ranking of the alternatives: each component expresses the importance of the alternative with respect to the goal.

## THE THEORETICAL MODEL

We represent the problem by means of a hierarchical structure: the objective, the criteria used to evaluate alternative investments and investment choices. Several contributions of the use of AHP in financial context exist (Zouponidis et al. 2015, Spronk et al. 2005, Saaty and Vargas 1982). In particular, Zouponidis and Doumpos (2002) highlighted that, in order to analyse decision making process involving humans, it is important to consider both individual preferences and knowledge.

Starting from the model suggested by Rossi et al (2019) to analyze an investment choice problem, we consider three evaluation criteria: the return of the stock market, performance of government bonds and calendar effects in the financial markets.

We propose to collect data by means of a questionnaire submitted to two different groups of financial operators (two classrooms of students).

At first, we will apply the group-AHP method to the financial illiterate students (illiterate classroom): students who have to follow the advanced financial course; then, we apply the same model to the financial literate students (literacy classroom): students who have followed the advanced financial course and successfully passed the final exam.

Applying the same group-AHP model to both groups of operators may help us to verify the influence of financial literacy on the investment choice.

Our analysis may be able to assign different weights to operators depending on the degree of financial education: who has a higher level of financial education could make more informed investment choices?

## CONCLUSIONS, LIMITATIONS AND FUTURE DIRECTIONS

The attention to FL has produced a growing interest to explore the link between Financial Literacy and Financial Behaviour. Scholars realised some important studies but the first consequence of this attention is that there is no clear definition of Financial Literacy. FL was confused with other terms and/or it had huge (but not focused) application.

Furthermore, the review of the literature shows a fragmentation, and this has prevented the formulation of a unified point of view on FL and investors' behaviour relation. In this paper, we presented a deep literature review, but results are disjointed and not specific.

For these reasons, this topic requires new and deeper studies. In particular, we present a theoretical method for a future research. We think that the application of the Analytic Hierarchy Process (AHP) method could represent a good solution to a comparison between two different groups: a financial illiterate operators group (illiterate classroom) and a financial literate operators group (literacy classroom).

The main limitations of this study is linked to the nature of the paper: this is a theoretical paper that requires future applications. In this way, we consider to test the proposed model at the begin of 2021 to 100 operators that will form two different class.

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## ESG, COMPETITIVE ADVANTAGE AND FINANCIAL PERFORMANCES: A PRELIMINARY RESEARCH

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### ABSTRACT

In the last few decades, Environmental, Social and Governance (ESG) performance has emerged as an important aspect for developing sustainable strategies that affect overall firm performance (Eccles and Serafeim, 2013). Also for automotive industry, sustainability has become a key competence to fight against climate change, resource efficiency and environmental degradation.

In this paper, we present preliminary findings of a research focused on the effect of a responsible and ethical behaviour on the financial performance of automotive companies.

The aim of this paper is to investigate on the impact of each singular E-S-G dimensions on financial performance, referring to a sample of 28 firms from the three leading automotive manufacturing clusters (Japan, United States and Europe).

Preliminary results show that there is a strong positive relationship between:

- Governance factor and firm market value (Enterprise value), and
- Environmental factor and firm market value (Enterprise value).

Moreover, there is a moderate positive relationship between:

- Governance factor and market performance (Book Value per Share and Leverage), and
- Environmental factor and market performance (Book Value per Share and Leverage).

These are preliminary results of a more complex research. Limitations are linked to the small sample and with the firms' heterogeneity. Moreover, in a future research we want to analyse the relationship between an ESG indicator and economic and financial performances.

*Keywords: ESG, Financial Performances, Automotive sector, Sustainability*

### INTRODUCTION

In the last few decades, Environmental, Social and Governance (ESG) performance has emerged as an important aspect for developing sustainable strategies that affect overall firm performance (Eccles and

Serafeim, 2013). Also for automotive industry, sustainability has become a key competence to fight against climate change, resource efficiency and environmental degradation.

Actually, the automotive sector is under considerable pressure from governments and society to improve its ESG performances: regulations are becoming more and more stringent consumer preferences seem to favour electric vehicles.

In response, cars and components companies appear to be increasingly involved in the field of sustainability. Consequently, the concept of Corporate Social Responsibility appears to be an integral part of the DNA of car manufacturers. *“Innovation, responsibility, teamwork, and continuous improvement”* are core values enunciated by General Motors; *“to make this world a mobile, sustainable place with access to all the citizens”* is Volkswagen vision statement; *“Through our commitment to quality, constant innovation and respect for the planet”* Toyota clearly includes Corporate Social Responsibility in its vision statement.

If on the one hand it's obvious that ESG factors are important to the ongoing changes of companies in the automotive sector, on the other hand you have to wonder whether ESG-related performance are already and will continue to be a key factor in attracting capital and in economic viability.

On these statements, we develop a paper in order to study the effect of a responsible and ethical behaviour on the financial performance of automotive companies. The paper is structured as follow: after this introduction, the next section presents a literature review on ESG and financial performance, with the definition of different Research Hypothesis. In the third section, we define the methodologies. The main results of the descriptive analysis and the OLS analysis are in the section four. In the final section, we conclude the paper with some important considerations for future researches.

## 2. LITERATURE REVIEW

Sustainable investment has been the subject of academic research for several years.

In this paper, we want to expand the debate about how ESG parameters affects corporate financial performance.

According to this aim, some emerging research focuses on the study of ESG dimensions ' influence on accounting- based indicators, such as ROA, ROE or ROI; while others investigate the possible links between ESG measures and market-based indicators, such as Tobin's Q or market-to- book ratio.

In their meta-analysis of 52 studies, Orlitzky et al. (2003) conclude that Corporate Social Responsibility and Environmental Responsibility pay off in financial terms; moreover Corporate Social Performance appears to be more highly correlated with accounting-based measures of Corporate Financial Performance than with market-based indicators.

Similar results are also confirmed by Falck and Heblich (2007) who argue that “ company can ‘do well by doing good’; in other words, it can make a profit and make the world a better place at the same time”.

Eccles et al (2014) investigate the effect of corporate sustainability on organizational processes and performance, using a matched sample of 180 US companies. Results shows that High Sustainability companies - corporations that voluntarily adopted sustainability policies by 1993- significantly outperform Low Sustainability companies over the long-term, (earning higher return -amounting 2.3% to 4.8% per annum-) both in terms of stock market as well as accounting performance. Findings also suggest that High Sustainability firms benefit more in B2C sectors and in sectors based on natural resources production.

The study done by Friede et al (2015), based on looking at more than 2000 empirical studies since the 1970s, examines the relationship between ESG criteria and financial performance of companies, publishing their results on The Journal of Sustainable Finance & Investment. Specifically, the findings show that roughly 90% of studies find a non-negative ESG- CFP relation and in addition, the large majority of studies reports positive results. The positive ESG influence on Corporate Financial Performance appears stable over time.

Additionally, the G variable appears to have a greater impact on the financial indicators, with the highest proportion found; instead the positive relationship is weakest for the social factor.

Instead, MIT Sloan School of Management and Breckenridge Capital Advisors (2016) in his research reveals a strong intuitive relationship between ESG scores and core figures that express financial health, such as debt ratios and profitability.

Clark et al (2015) in their meta-study categorize more than 200 different sources (academic studies, industry reports, newspaper articles and books).

According to their findings, a remarkable correlation between diligent sustainability business practices and economic performance shown: 88% of reviewed sources find that companies with robust sustainability practices demonstrate better operational performance and 80% of the reviewed studies demonstrate that prudent sustainability practices have a positive influence on stock market performance.

Different are the benefits associated to the integration of ESG report on financial statements, including the reduction of agency costs, of political costs and of information asymmetries or better internal resource allocation decisions.

Despite this, some researchers disclose that additional costs of ESG reporting may have a negative impact on firms' financial performance.

Kalinowski (2014) argues that there is no clear correlation between ESG factors and stock market variables.

Daszynska- Zygadlo et al (2016), in their research based on sample data covering more than 2000 companies from all over the world, discover that consumer staples sector is sensitive to governance and environmental dimensions; social dimension is significant for financials and utilities sectors; instead healthcare and energy sector are influenced by environment initiatives.

However, other researchers, such as for instance Barnett (2007) and Soana (2011) claim that there is still a lack of studies focusing on one specific industry.

Despite the existence of a vast body of academic literature on the possible relationship between ESG and a firm's financial performance, the discussion is still open.

Studies clearly provide an incomplete picture: positive, negative as well as neutral relationship have been obtained.

"Results are ambiguous, inconclusive, or contradictory". (Aupperle et al 1985).

Environmental, social and governance dimensions seem to have variant impact on financial performance for several factors: different variables are used to measure financial performance as well as different methods are employed to represent the ESG rating. Likewise results vary with the industry, the country or company they explore (Alshehhi et al., 2018).

Nevertheless there come out mixed findings, the idea of a strong positive ESG matters influence on firm's financial performance seems to prevail in the economic literature, as highlighted by numerous reports in recent years.

Referring to each single ESG component, governance seems to be the most analyzed factor as well as the most relevant one.

Gompers et al (2003) construct a "Governance Index" to proxy for the level of shareholder rights at about 1500 large firms during the 1990s in order to analyze a possible link between corporate governance and long-term equity return, firm value and accounting measures of performance. Their results clearly illustrate that firms with stronger shareholder rights have higher firm value, higher net profit margin, higher sales growth, higher return on equity and lower capital expenditures, supporting the hypothesis that well-governed companies outperform their poorly governed counterparts.

Bauer et al (2004) analyze the impact of good corporate governance on stock returns, firm value and operating performance for about 300 firms in Europe in 2000 and 2001: a positive relationship appears between governance and firm value, but substantial differences are found between the UK market and the Eurozone markets. In particular, this link seems to be stronger in the Eurozone markets than in the UK due to the fact that Eurozone countries traditionally tend to have lower governance standards.

Few other researchers' paper focus on the influence of governance metrics on firm performance with regard to specific countries, such as Drobetz et al. (2004) for Germany, De Jong et al. (2001) for the Netherlands and Black (2002) for Russia. These studies generally reveal a positive relationship between governance standards and firm value. Furthermore comparing the findings of these papers , it is permissible to highlight that the relationship seems to be strengthened in countries with less developed standards.

On the basis of the literature reported, our research hypothesis are:

*H1a: There is a positive and statistically significant relationship between Governance factor and market performance (Book Value per Share and Leverage).*

*H1b: There is a positive and statistically significant relationship between Governance factor and firm market value (Enterprise value).*

*H1c: There is a positive and statistically significant relationship between Governance factor and firm accounting performance (ROE and ROA).*

Referring to environmental and social factors, researches have a shorter history.

Russo and Fouts (1997) find a positive and significant relation between environmental and the firm's return-on-assets ratio.

The study conducted by Galema et al (2008) discover that environmental dimension has positive impacts on market value.

Similarly, Derwall et al (2010), focusing on the concept of eco-efficiency and analyzing the relation between eco-efficiency and financial performance from 1997 to 2004, demonstrate that higher eco-efficiency relates positively to operating performance and market value.

Weber (2013) in his study conducted on the ESG reporting of China Top 100 Green Companies shows a positive link between corporate environmental performance and financial returns.

On these basis, our research hypothesis are:

*H2a: There is a positive and statistically significant relationship between Environmental factor and firm accounting (ROE and ROA).*

*H2b: There is a positive and statistically significant relationship between Environmental factor and firm market value (Enterprise value).*

*H2c: There is a positive and statistically significant relationship between Environmental factor and market performance (Book Value per Share and Leverage).*

As for Social dimension, the most important paper on the association between social issues and financial returns is Edmans, Li and Zhang (2017). To be specific , the research analyzes the relationship between employee satisfaction and long-run stock returns around the world. The obtained results illustrate that employee satisfaction, measured to lists of the " The best companies to work for" in 14

countries, is associated with positive abnormal returns, current valuation ratios and future profitability in countries with high labor market flexibility, such as the U.S. and U.K., but not in countries with rigid labor market, such as Germany.

Forget (2012) argues that good business behavior with customers and suppliers is linked to financial outperformance.

Chen, Feldmann & Tang (2015) illustrate a significant and positive correlation between corporate social performance (referring specifically to the categories of human rights, society and product responsibility) and return on equity.

AXA IM Rosenberg (2018) through his study based on data for the 1000 largest US companies over the period January 2005 – July 2017, clearly demonstrates how firms with higher diversity levels (with regards to gender diversity in board of director and evidence of foreign board members) are related with higher current as well as future profitability.

On these basis, our RHs are:

*H3: There is a positive and statistically significant relationship between Social factor and firm accounting performance (ROE and ROA)*

Accordingly, this paper aims to explore the impacts of each individual ESG dimensions on a firm's profitability.

After investigating these links, the research will focus on possible differences of results between the three selected countries- USA, Japan and Europe-.

Therefore, in a second step of the analysis, the same research hypothesis will be applied with reference to each individual country.

### **3. DATA & METHODOLOGY**

Renowned the noticeable importance of ESG factors to the ongoing changes of companies in the automotive sector, the aim of the paper is to wonder whether ESG-related performance are already and will continue to be a key factor in attracting capital and in economic viability in the industry.

More specifically, the object of the analysis is to verify a possible direct link between good environmental, social or governance performance and financial performance of listed companies in the car sector.

#### **3.1. SAMPLE**

In order to study the effect of a responsible and ethical behaviour on the companies' financial performance in the automotive sector (with specific reference to Auto Manufacturers; Recreational Vehicles and Auto Parts), the sample is composed of 28 listed firms.

In particular, the sample firms are selected based on:

- Firstly, the provenience of the companies. Specifically, we have selected samples of large-size cars and components firms from three leading automotive manufacturing Countries - Japan, United States and Europe (Germany, Italy and France, the dominant European cluster in the car industry)-.
- The second is the availability of annual reports on ESG score of the firms. More in detail, data on ESG performance are collected from Sustainalytics, a leading global provider of ESG and corporate governance products and services.
- The third is the availability of audited financial data, with reference to year 2018. In depth, reports and data of these dependent variables are available on the Yahoo Finance and Morningstar websites. Additionally, the reported monetary values are expressed in Euro.

Firm distribution by Country in the sample is shown in Table 3.

*Table 3.: The sample firms distribution in automotive sector*

| <b>Company</b>          | <b>Country</b> | <b>Net Revenue 2018</b> |
|-------------------------|----------------|-------------------------|
| Borgwarner INC          | United States  | 9.325,01                |
| BMW                     | Germany        | 97.480,00               |
| Bridgestone Corporation | Japan          | 29.833,66               |
| Continental AG          | Germany        | 44.404,40               |
| Daimler AG              | Germany        | 167.362,00              |
| Denso Corporation       | Japan          | 41.751,88               |
| Faurecia S.E.           | France         | 17.524,70               |
| Ferrari N.V.            | Italy          | 3.420,32                |
| Ford Motor Company      | United States  | 141.963,27              |
| General Motors          | United States  | 130.197,18              |
| Harley-Davidson INC     | United States  | 5.061,73                |
| Honda Motor CO LTD      | Japan          | 125.558,26              |
| Lear Corporation        | United States  | 18.729,11               |
| Mazda Motor Corporation | Japan          | 28.395,82               |
| Mitsubishi Motor Corp.  | Japan          | 17.920,05               |

**Table 3.: The sample firms distribution in automotive sector**

|                                    |               |            |
|------------------------------------|---------------|------------|
| Nissan Motor CO. LTD               | Japan         | 97.685,94  |
| Porsche Automobil Holding          | Germany       | 103,00     |
| Renault SA                         | France        | 57.419,00  |
| Schaeffler AG                      | Germany       | 14.241,00  |
| Subaru Corporation                 | Japan         | 27.833,44  |
| Suzuki Motor Corp.                 | Japan         | 30.710,59  |
| Tesla                              | United States | 19.006,10  |
| The Goodyear Tire & Rubber Company | United States | 13.704,66  |
| Toyota Motor Corporation           | Japan         | 240.140,94 |
| Valeo SA                           | France        | 19.124,00  |
| Volkswagen AG                      | Germany       | 235.849,00 |
| Yamaha Motor CO LTD                | Japan         | 13.675,81  |

**Data in Millions. Currency : EUR**  
**Source: Author's Calculation**

As illustrate in the table 3, the sample consists of 9 listed companies from Europe; 11 well-known firms from Japan and 7 firms from United States. Despite our country samples are small-size, they are a set of companies best involved in improving environmental, social and governance performance.

### 3.2. VARIABLES

In order to verify the existence of a link between extra-financial items and financial performance of listed firms in automotive sector, the dependent variables used in the regression analysis are:

Return on equity (ROE). This marker measures how effectively management is using a company's assets to create profits. It is calculated as the ratio between net income and the value of shareholders' equity.

$$ROE = \text{NetIncome}/\text{Equity}$$

Return on Assets (ROA). This parameter shows the percentage of profit a company earns in relation to its overall resources. It is commonly calculated as the ratio between net income and the value of the assets.

$$ROA = \text{NetIncome}/\text{TotalAssets}$$

Leverage. This important financial index assesses the ability of a company to meet its financial obligations. Specifically, a higher financial leverage ratio indicates that a company is using debt to finance its assets and operations. In particular, the research refers to Debt Ratio, calculated as total debt divided by total assets. It shows a company's ability to pay off its liabilities with its assets.

$$\text{DEBT RATIO} = \text{TotalLiabilities/TotalAssets}$$

Enterprise Value. It is one of the fundamental metrics used in business valuation: it expresses the measure of a company's total value. In its calculation, it includes the market capitalization of a company but also short-term and long-term debt as well as any cash on the company's balance sheet.

$$\text{ENTERPRISE VALUE} = \text{CommonShares+PreferredShares+MarketValueofDebt+MinorityInterest-CashandEquivalents}$$

Book Value for Share. It is a ratio used to compare a firm's common shareholder's equity to the number of shares outstanding. It is obtained by the ratio of the balance sheet value of equity divided by the number of ordinary shares outstanding. It is used in order to determine if a stock is undervalued or overvalued and it helps investors understand how a stock behaves.

$$\text{BOOK VALUE PER SHARE} = (\text{Stockholders' Equity-PreferredStock})/\text{AverageSharesOutstanding}$$

Meanwhile, referring to the explanatory variables, non-financial performance are measured by ESG risk indicators.

Specifically, ESG risk rating of each firm is composed of:

Environmental score. It is an index of corporate environmental sustainability, obtained by considering the company's behavior with regard to some important issues such as biodiversity impacts, gas emissions, air quality, energy management.

Social score. It is a measures of corporate social sustainability, built considering the company's focus on social issues, such as protection and safety of workers, working conditions, human capital development.

Governance score. It is a marker of corporate governance sustainability. It focuses on the qualitative aspects of governance, considering some principal factors, such as Board Structure, Compensation/Remuneration, Shareholder Rights, and Audit practices.

ESG rating scale is from 0-100 and it is categorized across five risk levels: negligible, low, medium, high and severe. These risk categories are absolute, meaning that different level of risks are comparable across all subindustries covered.

Businesses that gain high score are those that proactively manage ESG issues, improving their non financial performance.

With reference to research sample firms, Volkswagen (ESG score 42,4), Nissan (ESG score 36) and Tesla (ESG score 31,4) appear to be the most engaged companies on the front of sustainability, facing a high ESG risk.

### 3.3. RESEARCH MODEL

In order to verify the existence of a link between extra-financial items and financial performance of listed firms in automotive sector, the dependent variables used in the regression analysis are:

Return on equity (ROE). This marker measures how effectively management is using a company's assets to create profits. It is calculated as the ratio between net income and the value of shareholders' equity.

$$\text{ROE} = \text{NetIncome/Equity}$$

Return on Assets (ROA). This parameter shows the percentage of profit a company earns in relation to its overall resources. It is commonly calculated as the ratio between net income and the value of the assets.

$$\text{ROA} = \text{NetIncome/TotalAssets}$$

Leverage. This important financial index assesses the ability of a company to meet its financial obligations. Specifically, a higher financial leverage ratio indicates that a company is using debt to finance its assets and operations. In particular, the research refers to Debt Ratio, calculated as total debt divided by total assets. It shows a company's ability to pay off its liabilities with its assets.

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With reference to research sample firms, Volkswagen (ESG score 42,4), Nissan (ESG score 36) and Tesla (ESG score 31,4) appear to be the most engaged companies on the front of sustainability, facing a high ESG risk.

#### **4. RESULTS**

The aim of the research paper is to investigate on the impact of each singular E-S-G dimensions on financial performance, referring to a sample of 28 firms from the three leading automotive manufacturing Countries/clusters (Japan, United States and Europe).

According to the goal, the main results of the statistical analysis are shown below.

From an overall assessment, Governance dimension seems to represent a value driver for firms in the car industry, followed by Environmental dimension.

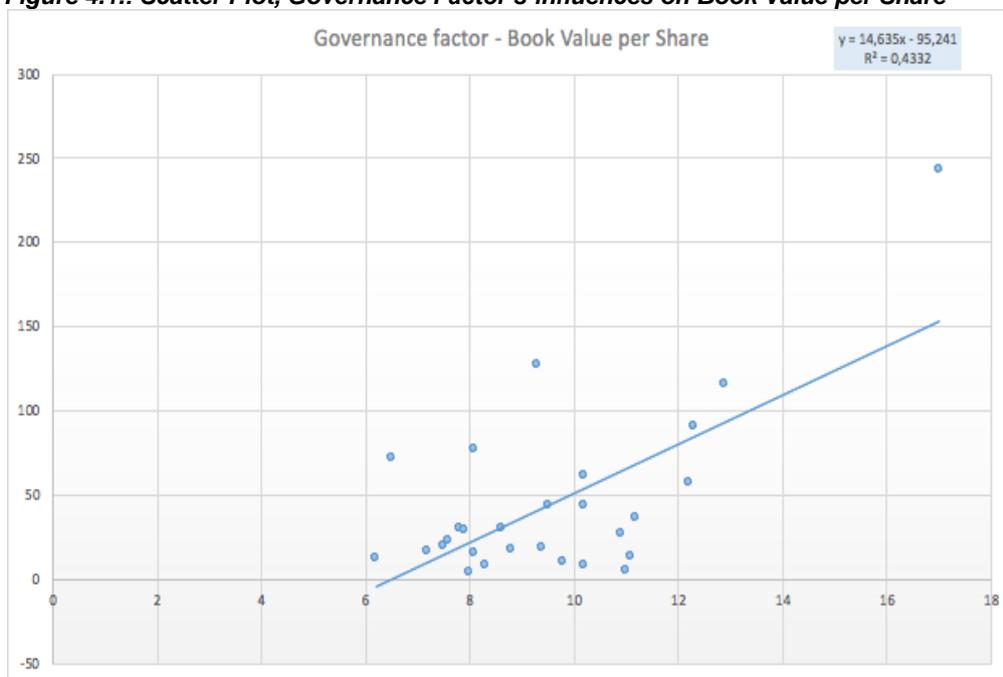
Conversely, Social factor appears to be negligible in affecting corporate financial performance.

To be accurate, the Table 1 shows some important evidences referring to the impact of G factor on firms market performance.

Table 1. Regression statistics results, Governance Factor - Firm Market Performance, automotive sector

|                   | Dependent variables  | $b_i$   | $R$    | $R^2$   | Significant P-value |
|-------------------|----------------------|---------|--------|---------|---------------------|
| Governance Factor | Leverage             | -0,0054 | 0,0082 | 0,00006 | 0,9666              |
|                   | Book Value for Share | 14,6348 | 0,6581 | 0,4332  | 0,000140            |

The H1a is partially confirmed. More in details, Governance factor seems to have no influence on Leverage: P-value equal to 0,966 and an R-squared of 0,0006 make the statistical model insignificant. In contrast, the regression analysis reveals a positive and statistically significant correlation between Book Value per Share and Governance Risk Index, with an  $R^2$  equal to 43,32%. The important level of significance, equal to 0,000140 validates the obtained model. Therefore if firms spend 1% more on governance issues, they would benefit in getting 14,6348 higher Book Value for Share.

**Figure 4.1.: Scatter Plot, Governance Factor's influences on Book Value per Share**

**Source: Author's calculation**

From a graphical analysis, a scatter plot above illustrates the relationship between Governance index and Book Value per Share. The distribution of firms around a positive inclined regression line, confirming statistical analysis.

Referring to the existence of a possible link between Governance factor and firms market value, findings are marked in the following table.

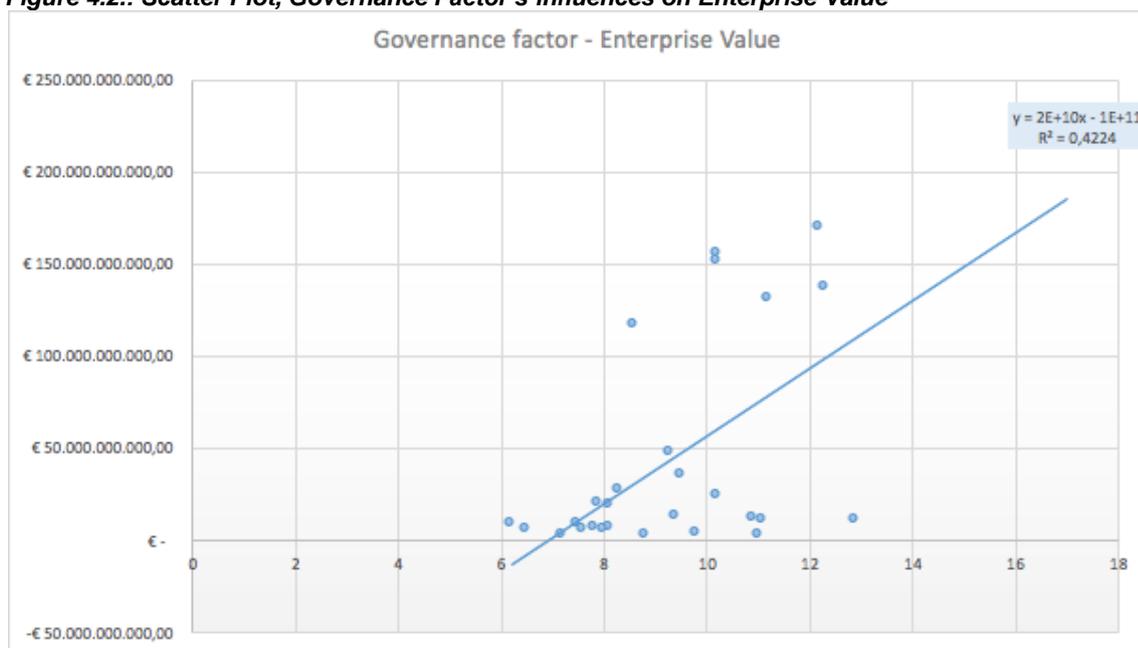
Table 2. Regression statistics results, Governance Factor - Firm Market Value, automotive sector

|                   | Dependent variables | $b_i$       | $R$    | $R^2$  | Significant P-value |
|-------------------|---------------------|-------------|--------|--------|---------------------|
| Governance Factor | Enterprise value    | 18383117901 | 0,6498 | 0,4223 | 0,00018             |

**Source: Author's calculation**

To be specific, Governance Index appears positively related with Enterprise Value. The R- squared of the model is equal to 42,23% and the important level of significance is equal to 0,00018, implying the model can explain the data relatively well. As firms become more responsible for a good Corporate Governance, their Enterprise Value increases.

**Figure 4.2.: Scatter Plot, Governance Factor's influences on Enterprise Value**



**Source: Author's calculation**

The graphical representation confirms the results of this analysis: the regression line turns out to have a positive slope; the various couple of values (Governance index- Enterprise Ratio) are distributed around the trend line.

The H1b is validated. According to Gompers et al (2003) firms with stronger shareholder rights have higher firm value.

Table 3 points the regression between Governance factor and firms accounting indicators.

Table 3. Regression statistics results, Governance Factor - Firm Accounting Performance, automotive sector

|                   | Dependent variables | $b_i$   | $R$    | $R^2$  | Significant P-value |
|-------------------|---------------------|---------|--------|--------|---------------------|
| Governance Factor | ROA                 | -0,4835 | 0,3036 | 0,0922 | 0,1161              |
|                   | ROE                 | -2,3689 | 0,3724 | 0,1386 | 0,0509              |

**Source: Author's calculation**

The Governance index is negatively correlated with Return on Equity. The weaknesses of this relation is highlighted by data:  $R^2$  equal to 13,86% and P-value equal to 0,0509.

Instead G dimension seems to be insignificant in explaining control variable ROA: indeed, by looking at results, the level of significance equal to 0,1161 and the R- squared equal to 0,0922 don't confirm the obtained model.

The third hypothesis H1c is not supported.

Referring to Environmental factor, Table 4 provides data about the influence of E dimension on firms accounting performance.

Table 4. Regression statistics results, Environmental Factor - Firm Accounting Performance, automotive sector

|                      | Dependent variables | $b_i$   | $R$    | $R^2$  | Significant P-value |
|----------------------|---------------------|---------|--------|--------|---------------------|
| Environmental Factor | ROA                 | -0,2554 | 0,1880 | 0,0353 | 0,3379              |
|                      | ROE                 | 0,0805  | 0,0148 | 0,0002 | 0,9402              |

**Source: Author's calculation**

The research hypothesis H2a is not confirmed. The analysis illustrates an insignificant correlation between Environmental index and accounting marks, ROE- ROA, with a higher P-value, equal to 0,9402 and 0,3379 respectively.

An increased focus on Environmental variable seems to have no effect on firms accounting performance.

In terms of long-term performance (Enterprise Value), the main results are shown in table 5.

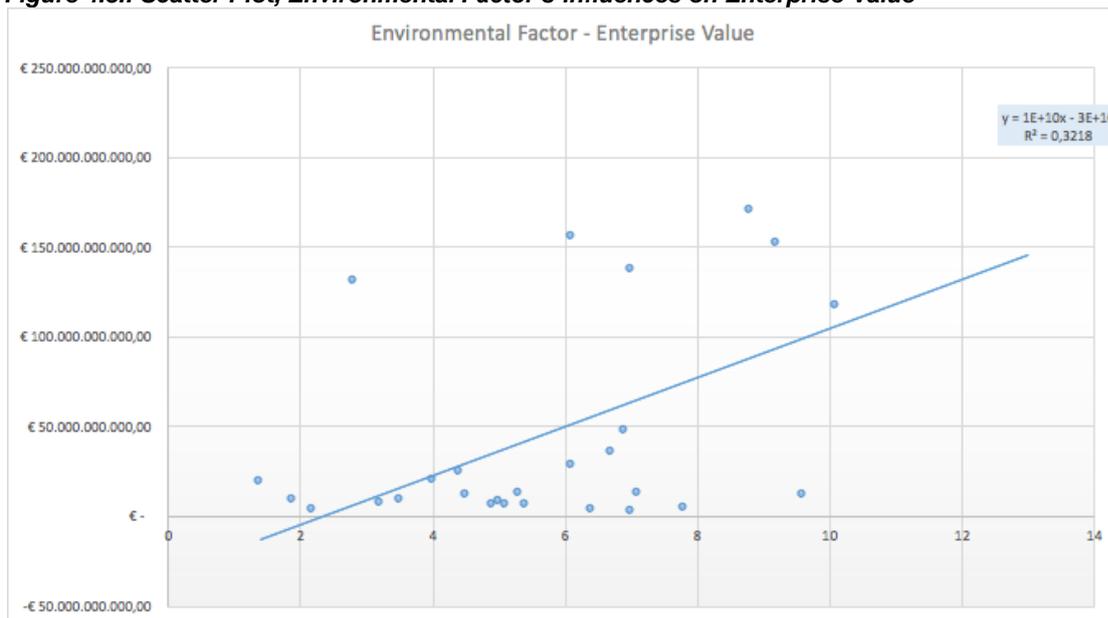
Table 5. Regression statistics results, Environmental Factor - Firm Market Value, automotive sector

|                      | Dependent variables | $b_i$       | $R$    | $R^2$  | Significant P-value |
|----------------------|---------------------|-------------|--------|--------|---------------------|
| Environmental Factor | Enterprise value    | 13692088517 | 0,5672 | 0,3217 | 0,0016              |

**Source: Author's calculation**

Specifically, the Environmental Risk variable has a positive relationship with the control variable Enterprise Value. The important level of significance, equal to 0.0016, validates the obtained model. A greater attention to the Environmental factor positively influences the value of firms, increasing it.

**Figure 4.3.: Scatter Plot, Environmental Factor's influences on Enterprise Value**



**Source: Author's calculation**

The obtained result is also summarized in Figure 4.3. The regression line is inclined positively, which means that as the commitment to the E factor increases, the Enterprise Value generally tends to increase.

Even if the correlation is not particularly strong, with an R-squared equal to 32.17% , the finding definitely confirms the research hypothesis H2b.

The regression analyses conducted between Environmental factor and Market Performance variables, Leverage and Book Value for Share, leads to the following result:

Table 6. Regression statistics results, Environmental Factor - Firm Market Performance, automotive sector

|                      | Dependent variables  | $b_i$  | $R$    | $R^2$  | Significant P-value |
|----------------------|----------------------|--------|--------|--------|---------------------|
| Environmental Factor | Leverage             | 0,1320 | 0,2357 | 0,0555 | 0,2272              |
|                      | Book Value per Share | 6,7522 | 0,3558 | 0,1266 | 0,0630              |

**Source: Author's calculation**

The research hypothesis H2c can be partially accepted. In particular, the findings highlight a positive link between Environmental Dimension and Book value per Share, even if the value of the correlation is of little significance, with an R-squared equal to 12.66. However, a P-value of 0.0630 validates the model.

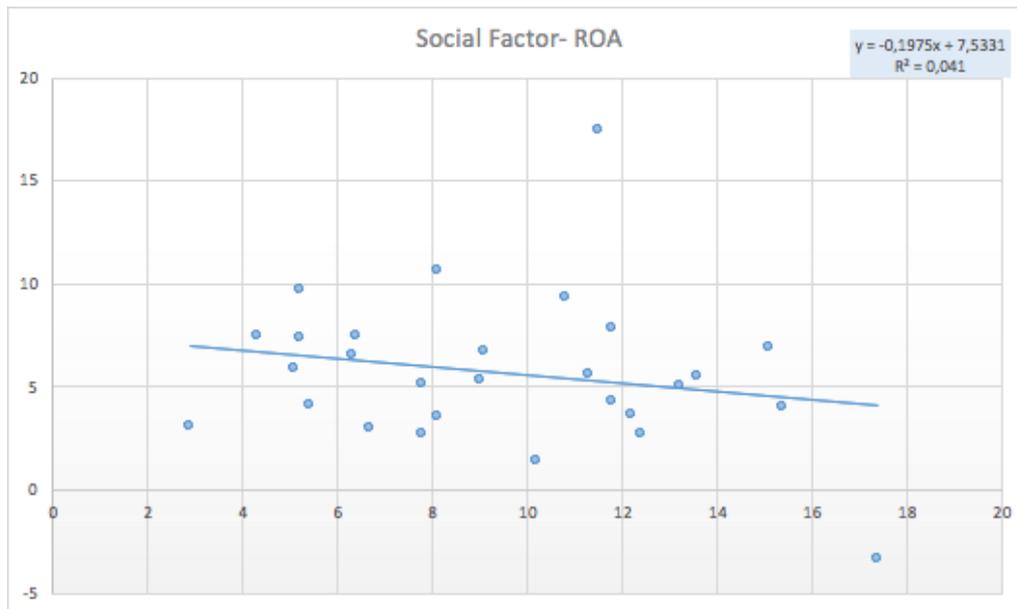
In contrast, referring to the dependent variable Leverage, the analysis substantially loses any statistical significance: the Environmental index is completely uncorrelated with Leverage ratio, as shown by looking data (R-squared of 5.55% and P-value of 0.2272).

For the test of the last research hypothesis H3, the table 7 gives a summary of the main findings.

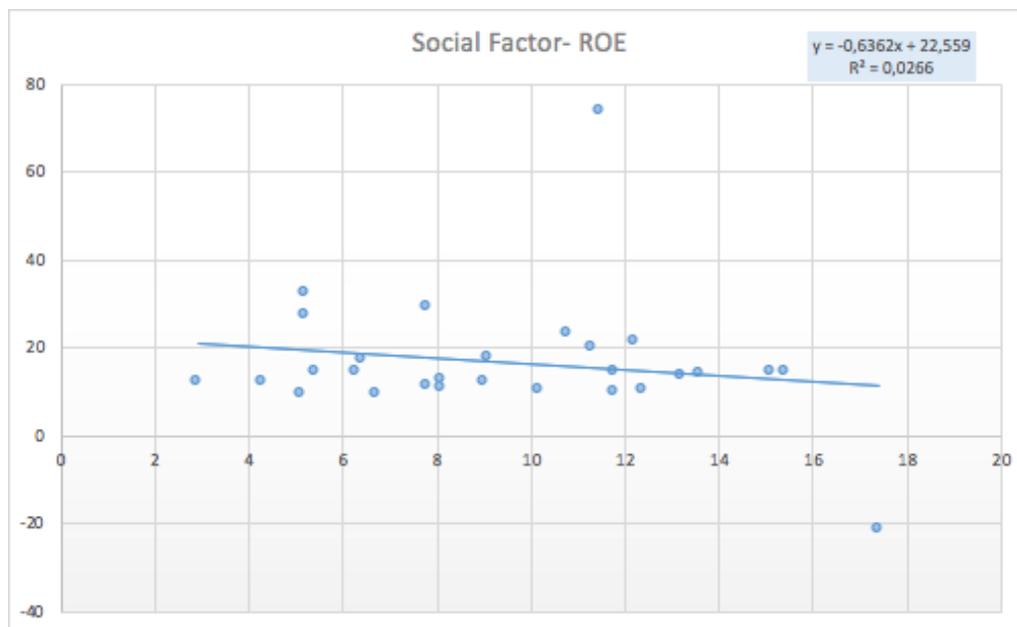
Table 7. Regression statistics results, Social Factor - Firm Accounting Performance, automotive sector

|               | Dependent variables | $b_i$   | $R$    | $R^2$  | Significant P-value |
|---------------|---------------------|---------|--------|--------|---------------------|
| Social Factor | ROA                 | -0,1974 | 0,2023 | 0,0409 | 0,3016              |
|               | ROE                 | -0,6361 | 0,1632 | 0,0266 | 0,4066              |

Referring to social dimension the absence of any correlation with ROE and ROA is evident by examining data: R-squared is between 2% and 4%, in addition the P-value, equal to 0,4066 and 0,3016 respectively, is insignificant in both regressions.



**Source: Author's calculation**



**Source: Author's calculation**

The graphical representations below confirm the obtained results: to be specific, the regression line appears flat (only slightly inclined, with R-squared of just 0.02 and 0.04 respectively.) It means that social dimension has no influence on firms accounting performance: the research hypothesis H3 isn't confirmed in automotive industry.

## 5. CONCLUSIONS, LIMITATIONS AND FUTURE DIRECTION

Different scholars (Eccles and Serafeim, 2013; Waddock and Graves, 1997; Surroca et al., 2010) underline that Economic Social and Governance performance has emerged as an important characteristic for competitive advantages and sustainable overall firm performance.

In the last few years, the number of studies increased. In particular, some emerging research focuses on the study of ESG dimensions influence on financial performance (accounting- based indicators and market-based indicators).

Even if the literature review is increasing, there is still a lack of studies focusing on one specific industry.

We present a research concerning the effect of a responsible and ethical behaviour on the financial performance of automotive companies.

The results are not clear. In fact, some hypotheses were confirmed but others rejected.

However, these are preliminary results of a more complex research. Limitations are linked to the small sample and with the firms' heterogeneity. Moreover, in a future research we want to analyse the relationship between an ESG indicator and economic and financial performances.

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# INFLUENCE OF INTANGIBLE RESOURCES ON COMPETITIVE ADVANTAGE: EMPIRICAL STUDY OF PORTUGUESE TEXTILE INDUSTRY SMES

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## ABSTRACT

The purpose of this paper is to analyse the influence of intangible resources on export performance.

The authors use a qualitative research approach by conducting a quantitative study based on survey data from 247 Portuguese small and medium-sized enterprises (SMEs) from the textile industry. Findings suggest that intangible resources has a positive and significant influence on competitive advantage, either by cost leadership or differentiation.

This paper presents further evidences of the strategies that SMEs managers should pursue and policy makers should promote. We conclude that globally intangible resources have a positive and significant impact on competitive advantage, either cost leadership or differentiation.

Finally, this study deepens our understanding and provides novel insights into strategic management literature, since it combines multiple factors and has obtained the importance of each construct in SMEs business growth.

*Keywords: intangible resources, competitive advantage, differentiation, cost, textile industry, SMEs, PLS-SEM.*

## INTRODUCTION

Exploring intangible resources among SMEs has inherent scholarly value, since these firms tend to be constrained in their tangible assets; possessing intangible resources take on particular strategic significance and can form the basis for competitive advantage (Anderson & Eshima, 2013).

Resource-based scholars argue that resources form the basis of firm strategies (Barney, 1991) and intangible resources are more likely than tangible resources to produce a competitive advantage, since they are often rare and socially complex, thereby making them difficult to imitate (Hitt, Bierman, Shimizu, & Kochhar, 2001). Thus, intangible assets are considered strategic variables (Amit & Schoemaker, 1993) and can consequently create sustainable value. Firms with valuable, scarce, and

nonsubstitutable resources can gain at least temporary advantages by using those resources to develop and implement product-market strategies (Hsu & Ziedonis, 2013).

So, the purpose of this paper is to broad the boundaries of and strategic management literature and test the following research question: — *Does intangible resources positively influence small business competitive strategies, either by cost leadership or differentiation?*

## **THEORETICAL FRAMEWORK**

### *Intangible resources*

There is a consensus in the literature that the source of competitive advantage is much more associated with intangible resources, since these are scarcer and socially complex, making their imitation difficult (Barney, 1991; Hitt et al., 2001). Consequently, intangible resources are considered strategic resources (Amit & Schoemaker, 1993).

Intangibles have three interesting features that distinguish them from tangible resources (Molloy et al., 2011). First, intangibles do not deplete or deteriorate with use, conferring benefits for an undefined period of time, contrasting with tangible resources, which have expected depreciation (Cohen, 2005). Second, multiple managers can simultaneously use intangibles. For example, the brand is available for use to all managers. Finally, intangibles are immaterial, which makes them difficult to exchange and cannot be separated from their owner. Indeed, to get hold of a brand, firms must often acquire the entire organization (Marr & Roos, 2005).

Empirical research identified six types of resources that are particularly important sources of competitive advantage, especially in international ventures: reputational resources; access to financial resources; human resources; cultural resources; relational resources; and informational (knowledge) resources (Morgan, Vorhies, & Schlegelmilch, 2006).

Intangible resources are based upon knowledge or information, such as organisational culture, product reputation, firm's brand, their abilities are unlimited (Pearson, Pitfield, & Ryley, 2015), having a much broader range of use in international markets (Fernández-Olmos & Díez-Vial, 2015).

### *Competitive advantage*

The increased intensity of business competition has forced firms to adopt a non-traditional management techniques and tools. Maintaining competitive advantage is a dynamic and infinite activity (Hung, Yang & Lien, 2010).

How firms achieve and sustain competitive advantage? This is the fundamental question in the field of strategic management (Teece et al., 1997). Porter (1985) considers simply a matter of creating value for customers and doing it better than competition.

Porter's model to classify firm strategies remains the most commonly supported and acknowledged framework in strategic management literature (Allen et al., 2006). Porter proposed four competitive strategies: broad cost leadership, broad differentiation, cost focus and differentiation focus. While cost leadership or differentiation is defined as dominant competitive strategies, focus is not a standalone strategy and "is not sufficient for above-average performance" (Porter, 1985, p. 15). Consequently, there is a tendency in the literature to recognise two main sources of competitive advantage: a) cost leadership – reaching lower costs than competitors and b) differentiation – creating more value for customers than the average firm (Lechner & Gudmundsson, 2014). Furthermore, and according to Porter, the two logics of differentiation and cost leadership are incompatible.

Hence, we can reduce the study of competitive strategy to differentiation and cost leadership, especially if the competitive strategy is related to other strategic elements of firm's behaviour. Differentiation means to fulfil customers' needs in a unique way, based on speed, customer service and flexibility, which is consistent with innovative approaches and characteristics of entrepreneurial firms. Cost leadership requires substantial financial resources (to invest in tangible assets), is based on process innovation, learning curve benefits, economies of scale and standardization, and seems to be less appropriate for small firms, given the resource constraints (Lechner & Gudmundsson, 2014).

Sustainable competitive advantage represents firm's competitive maintenance on the long run, whose performance is above average, resisting the dynamic evolution of competition, consumers and industry (e.g. Amit & Schoemaker, 1993; Peteraf, 1993; Porter, 1985).

#### *Hypotheses derivation*

RBV argues that competitive advantages are obtained from firms' resources based on two assumptions: 1) strategic resources are heterogeneously distributed across firms; and 2) these differences are stable overtime (Barney, 1991). Barney (1995, p. 66) suggested that, in order to create sustained competitive advantage and discover unique resources and capabilities, "managers must look inside their firm for valuable, rare and costly-to-imitate resources, and then exploit these resources through their organization". Peteraf (1993) considers resources to be the cornerstone of competitive advantage.

*H1*: Intangible resources are positively associated with cost leadership.

*H2*: Intangible resources are positively associated with differentiation.

## METHOD

### *Sample and data collection*

The population of this empirical study has been drawn from Portuguese textile industry firms. Questionnaires were used as primary data sources and were carried out over the period of February 16 to April 30, 2016. The identification of companies was done through the Portugal's Textile Association (Associação Têxtil de Portugal – ATP) database. So, in this study we use a non-probabilistic and convenient sampling.

A total of 247 complete and validated questionnaires accounting for 25% per cent of the population were obtained. This response rate is considered quite satisfactory, given that the average of top management survey response rates are in the range of 15%-20% (Menon & Bharadwaj, 1999).

### *Statistical analysis*

We used PLS-SEM path modelling to test our hypothesis, specifically the software SmartPLS 3.0 (Hair et al., 2013; Sarstedt et al., 2014). We believe that the PLS-SEM path modelling is best suited to estimate our research model since: 1) this study focuses on prediction and explanation of constructs variance (in our case 2: intangible resources and competitive advantage); 2) our research model has a complex structure; 3) the relationship between intangible resources and competitive advantage; 4) this study uses first and second-order reflective constructs; and 5) the sample (n=247).

### *Measures*

This study uses well-validated scales from previous studies to operationalize the key constructs and adapted them to the particular context of our empirical setting.

Independent variable – Following Morgan et al. (2006), in the intangible resources construct we included six dimensions: reputational resources; access to financial resources; human resources; cultural resources; relational resources; and informational resources.

Dependent variable – Competitive strategy was measured through two dimensions, differentiation and cost leadership, using Morgan et al. (2004) scale.

For intangible resources and competitive advantage, the decision-makers were asked to assess the relative position of their firm vis-à-vis their competitors. All constructs were assessed on a five-point Likert scale.

## RESULTS

### *Non-response bias and common method bias*

In this study we performed a univariate test of significance (*t*-test), to examine existing differences between respondents who answered our questionnaire quickly and those who did not. The results ( $p < 0.05$ ) showed the absence of significant differences between the two groups of respondents. Hence, we can assure that our sample is free from non-response bias. The methods used to reduce the risk of common method-bias were several. In the survey design itself, already validated in previous investigations, short and concise items were used to reduce misunderstandings. A pre-test was conducted to a group of several university experts and business specialists. Similarly, following the recommendation of Podsakoff et al. (2003), a distribution of items of dependent and non-consecutive independent variables was used. Finally, before assessing the relationships between dependent and independent variables, Harman's single-factor test was performed. Unrotated factor analysis using the eigenvalue-greater-than-one criterion revealed six factors, the first explaining 17.0 percent of the variance. This suggests that common method bias is not a serious threat to the validity of our study.

Next, in order to analyse and interpret the PLS-SEM results, we will: 1) assess the measurement model; and 2) evaluate and test the structural model.

### *Evaluation of measurement model*

Results from Table 1 show that the measurement model meets all general requirements. First, all reflective items have a load higher than 0.707, which means that the reliability of individual indicators (loading<sup>2</sup>) are higher than 0.5. Second, all composite reliability values and Cronbach's alpha values are higher than 0.70, suggesting acceptable model reliability. Third, the average variance extracted (AVE) values of all constructs are higher than 0.50, indicating an adequate convergent validity and implying that our set of indicators represent the same underlying construct (Hair et al., 2013).

| First-order constructs | Items | Factor loading |                           | Cronbach's Alpha | Composite reliability | AVE   |
|------------------------|-------|----------------|---------------------------|------------------|-----------------------|-------|
|                        |       |                | Item loading <sup>2</sup> |                  |                       |       |
| INTANGIBLE RESOURCES   |       |                |                           |                  |                       |       |
|                        | REP1  | 0.928          | 0.861                     |                  |                       |       |
| Reputational resources | REP2  | 0.915          | 0.837                     | 0.905            | 0.934                 | 0.779 |
|                        | REP3  | 0.847          | 0.717                     |                  |                       |       |
|                        | REP4  | 0.835          | 0.697                     |                  |                       |       |
|                        | FIN1  | 0.940          | 0.884                     |                  |                       |       |
| Financial resources    | FIN2  | 0.962          | 0.925                     | 0.964            | 0.974                 | 0.902 |
|                        | FIN3  | 0.942          | 0.887                     |                  |                       |       |
|                        | FIN4  | 0.956          | 0.914                     |                  |                       |       |

|                         |       |       |       |       |       |       |
|-------------------------|-------|-------|-------|-------|-------|-------|
|                         | HUM1  | 0.875 | 0.766 |       |       |       |
| Human resources         | HUM2  | 0.889 | 0.790 | 0.932 | 0.952 | 0.832 |
|                         | HUM3  | 0.943 | 0.889 |       |       |       |
|                         | HUM4  | 0.939 | 0.882 |       |       |       |
|                         | CULT1 | 0.922 | 0.850 |       |       |       |
| Cultural resources      | CULT2 | 0.914 | 0.835 | 0.891 | 0.932 | 0.821 |
|                         | CULT3 | 0.880 | 0.774 |       |       |       |
|                         | REL1  | 0.963 | 0.927 |       |       |       |
| Relational resources    | REL2  | 0.916 | 0.839 | 0.951 | 0.965 | 0.872 |
|                         | REL3  | 0.934 | 0.872 |       |       |       |
|                         | REL4  | 0.922 | 0.850 |       |       |       |
|                         | INF1  | 0.875 | 0.766 |       |       |       |
| Informational resources | INF2  | 0.822 | 0.676 | 0.881 | 0.917 | 0.734 |
|                         | INF3  | 0.864 | 0.746 |       |       |       |
|                         | INF4  | 0.866 | 0.750 |       |       |       |
| COMPETITIVE ADVANTAGE   |       |       |       |       |       |       |
|                         | VCC1  | 0.884 | 0.781 |       |       |       |
| Cost                    | VCC2  | 0.816 | 0.666 | 0.900 | 0.931 | 0.771 |
|                         | VCC3  | 0.952 | 0.906 |       |       |       |
|                         | VCC4  | 0.855 | 0.731 |       |       |       |
|                         | VCP1  | 0.875 | 0.766 | 0.924 | 0.946 | 0.814 |
| Product                 | VCP2  | 0.903 | 0.815 |       |       |       |
|                         | VCP3  | 0.929 | 0.863 |       |       |       |
|                         | VCP4  | 0.902 | 0.814 |       |       |       |
|                         | VCS1  | 0.863 | 0.745 |       |       |       |
| Service                 | VCS2  | 0.923 | 0.852 | 0.886 | 0.921 | 0.746 |
|                         | VCS3  | 0.865 | 0.748 |       |       |       |
|                         | VCS4  | 0.799 | 0.638 |       |       |       |

Table 1. *Measurement model*

Finally, regarding discriminant validity, this paper presents two necessary approaches: 1) the first approach suggests that the AVE should share more variance with its assigned indicators than with any other construct - Fornell-Larcker criterion (Fornell & Larcker, 1981); and 2) the second approach suggests that no item should have a higher factor load with another construct than with the one which is assign to measure. The results shown in Table 2 confirm the existence of discriminant validity in our study.

| Dimension                  | 1.   | 2.   | 3.   | 4.   | 5.   | 6.   | 7. | 8. | 9. |
|----------------------------|------|------|------|------|------|------|----|----|----|
| 1. Cost                    | .878 |      |      |      |      |      |    |    |    |
| 2. Cultural resources      | .260 | .906 |      |      |      |      |    |    |    |
| 3. Financial resources     | .670 | .511 | .950 |      |      |      |    |    |    |
| 4. Human resources         | .373 | .810 | .636 | .912 |      |      |    |    |    |
| 5. Informational resources | .480 | .557 | .496 | .666 | .857 |      |    |    |    |
| 6. Product                 | .303 | .711 | .485 | .731 | .524 | .902 |    |    |    |

|                           |      |      |      |      |      |      |      |      |      |
|---------------------------|------|------|------|------|------|------|------|------|------|
| 7. Relational resources   | .447 | .698 | .622 | .715 | .606 | .649 | .934 |      |      |
| 8. Reputational resources | .404 | .639 | .589 | .660 | .459 | .789 | .656 | .882 |      |
| 9. Service                | .319 | .502 | .465 | .589 | .540 | .814 | .599 | .555 | .864 |

Table 2. *Latent constructs correlation (Fornell-Larcker Criterion)**Evaluation of structural model*

Once the measurement model is defined and validated in all its components, we will proceed and create the second order model, following previous research (e.g. Zahra & Garvis, 2000), where the latent variables of the measurement model behave as constructs' measurement variables. Specifically, Intangible Resources (reputational, financial, human, cultural, relational and informational resources), Competitive Advantage-Cost and Competitive Advantage-Differentiation (product and service).

In the following tables 3 and 4, we present the results of reliability, convergent validity and discriminant validity corresponding to the second order model. All data confirm the strength of our model.

| Construct/<br>Dimension                      | Cronbach's<br>Alpha | Composite<br>Reliability | AVE  |
|--|---------------------|--------------------------|------|
| 1. Intangible resources                      | .963                | .929                     | .687 |
| 2. Competitive advantage-<br>differentiation | .940                | .951                     | .907 |
| 3. Competitive advantage-cost                | .901                | .927                     | .761 |

Table 3. *Convergence validity and reliability indexes of the second-order model*

| Construct/Dimension                          | 1.   | 2.   | 3.   |
|--|------|------|------|
| 1. Intangible resources                      | .829 |      |      |
| 2. Competitive advantage-<br>differentiation | .726 | .952 |      |
| 3. Competitive advantage-cost                | .535 | .326 | .873 |

Table 4. *Discriminant validity index of the second-order model*

Results from Table 5, regarding the effect of intangible resources on firms' competitive strategies, remarkably our findings confirm that the possession of intangible resources influences the development of both cost leadership and differentiation (product or service). That is, the possession of reputational, financial, human, cultural, and relational and information resources support competitive strategies design by firms. According to statistical data, these intangible resources are more significant on differentiation ( $\beta=0.723$ ;  $p$ -value $<0.001$ ), confirming H2. Similarly, H1 is also supported by the model ( $\beta=0.525$ ;  $p$ -value $<0.001$ ).

| Hypotheses    | Original<br>Sample (O) | T<br>Statistics<br>( O/STDEV ) | p<br>values | 2.5%  | 97.5% | Results   |
|---------------|------------------------|--------------------------------|-------------|-------|-------|-----------|
| H1. IR -> CAC | 0.525                  | 10.917                         | 0.001*      | 0.428 | 0.614 | Supported |
| H2. IR -> CAD | 0.723                  | 17.448                         | 0.001*      | 0.634 | 0.797 | Supported |

\* $p<0.001$

Table 5. *Significant testing results of the structural model path coefficients*

## DISCUSSION AND CONCLUSIONS

The main purpose of this study was to analyse the influence of intangible resources on competitive advantage. The central context of this research is on SMEs, which constitute the vast majority of firms in Portugal, as in most world economies. Thus, we conducted an empirical research based on a sample of 247 firms, which were applied a questionnaire in order to exploit data to test hypothesis, using proceedings and statistical techniques.

Newbert (2007) argues that, because of their rareness, intangible resources are critical to gain competitive advantage and its ownership is an important factor in the SMEs ability to implement strategies that lead to superior performance. On this point, we conclude that globally intangible resources have a positive and significant impact on competitive advantage, either cost leadership or differentiation (H1 and H2 supported). This is due to the fact that these resources are valuable, rare and inimitable, and are dully organized to be converted into competitive advantage (Barney, 1995), which is why they are considered the cornerstone of competitive advantage (Peteraf, 1993), and are taken into consideration in the development and implementation of product-market strategies (Hsu & Ziedonis, 2013). Thus, this study demonstrated that the firms' intangible resources has a positive and significant influence on their competitive advantage.

As reported by the ATP (2014), globalization pressures, such as textile trade liberalization, have considerably affected the industry. The textile sector is being subjected to strong pressures in a fast-changing business environment due to market volatility and strong competition world-wide. The key success factors of the industry are related primarily with cost (labour, energy, transport), but also with geographical location (flexibility, responsiveness, proximity service), knowledge (know-how, experience, technical expertise, research and development, networking) and recognition (tradition, brands, quality). Therefore, we acknowledge that the sector is developing strong differentiation factors. Firms in these mature markets must look for ways to stay competitive and develop strategies that enables them to differentiate themselves from other firms.

We highlight the contribution of this study to the theory of strategic management. It is known that strategy includes deliberate and emergent initiatives adopted by management, comprising resource and capabilities used to improve business performance (Nag, Hambrick, & Chen, 2007). In order to remain competitive, firms must assess which strategic determinants give them an advantage over their competitors. The findings are a contribution to clarify the influence of intangible resources in small firms export performance.

Additionally, our findings provide guidance to business practitioners, since they indicate that intangible resources is predictor of competitive strategies and performance. The research has also shown the positive influences of generic strategies on firm performance. So, for small firm managers, competitive strategy does matters and the development of one type of competitive advantage, alongside with firm's resources, is a major performance driver.

The study is not without its limitations. The fact that the research does not consider the effect of control variables such as age, location and target market of the respondents can be seen as a limitation. Finally, the fact that the sampling is non probabilistic and convenience is a limitation. Therefore, we advise prudence in the generalization of results.

Firstly, this study has been based on a mature sector, as is the textile sector in Portugal. The results obtained should be understood in this context. For this reason, new research could be done in more modern industries to test again the proposed relations. Second, given the irregular nature of business growth, a snapshot survey may not be able to capture strategy and performance variations over long periods of time. As such, further studies with a longitudinal perspective would be of added value to investigate why these differences persist. In other words, to find how and why some small exporters become highly successful while others, in the same industry, struggle to raise their export strengths.

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## **ABSORPTIVE CAPABILITIES AND EXPORT PERFORMANCE: WHAT IS THE CONNECTION?**

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### **ABSTRACT**

The purpose of this paper is to analyse the influence of absorptive capabilities on export performance.

The authors use a quantitative research approach by conducting a study based on survey data from 247 Portuguese small and medium-sized enterprises (SMEs) from the textile industry. Findings suggest that absorptive capabilities has a positive and significant influence on export performance.

This paper presents further evidences of the strategies that SMEs managers should pursue and policy makers should promote. This study demonstrated that the firms' absorptive capabilities has a positive and significant influence on export performance and deepens our understanding and provides novel insights into strategic management literature, since it combines multiple factors and has obtained the importance of each construct in SMEs business growth.

*Keywords: absorptive capabilities, export performance, textile industry, SMEs, PLS-SEM.*

### **INTRODUCTION**

This study aims to analyse the influence of absorptive capabilities on export performance.

Firms may possess resources but must display dynamic capabilities otherwise shareholder value will be destroyed (Bowman & Ambrosini, 2003). It is in this context that emerges the Dynamic Capabilities View (DCV) (Amit & Schoemaker, 1993; Teece, Pisano & Shuen, 1997) to support the adjustment to environmental change. The literature suggests that resources and capabilities are related to each other (Dhanaraj & Beamish, 2003; Morgan, Kaleka & Katsikeas, 2004). Integration, reconfiguration and learning resources only become significant when resources are abundant (Wu & Wang, 2007), thus improving firms' dynamic capabilities. Monteiro, Soares and Rua (2017) defend that in versatile markets, firms' capabilities should be dynamic and managers must display the ability to ensure consistency between business environment and strategy in order to continuously renew skills.

Our study is responsive to the call of Sousa, Martínez-López and Coelho (2008) which suggests that, in

the context of international markets, firms' survival and expansion, and consequent economic growth of many countries, is strongly dependent on a better understanding of the determinants that influence export performance. In fact, the factors that set off SME growth (including exporting) are still in need of research (Stouraitis et al., 2017). So, the purpose of this paper is to broaden the boundaries of strategic management literature and test the following research question: — *Does absorptive capabilities positively influence small business export performance?*

## **THEORETICAL FRAMEWORK**

### *Absorptive capabilities*

Cohen and Levinthal (1990) presented a definition of ACAP most widely cited by academic research, as the firm's ability to identify, assimilate and exploit new knowledge. Thus, this ability access and use new external knowledge, regarded as an intangible asset, is critical to success and depends mainly on prior knowledge level, since it is this knowledge that will facilitate the identification and processing of new one. This prior knowledge not only includes the basic capabilities, such as shared language, but also recent technological and scientific data or learning skills. By analysing this definition is found that absorptive capability of knowledge only three dimensions: the ability to acquire external knowledge; the ability to assimilate it inside; and the ability to apply it.

Zahra and George (2002) divided ACAP in Potential Absorptive Capability (PACAP) and Realized Absorptive Capability (RACAP). PACAP reflects the firms' ability to acquire and assimilate knowledge that is vital for their activities. Knowledge identification, acquisition and assimilation is related to routines and processes that permit to analyse, process, interpret and understand external information. RACAP includes knowledge transformation and exploitation, where transformation is the ability to develop routines that facilitate the integration of newly acquired knowledge in existing one. Knowledge exploitation are routines which enhance existing skills or create new ones by incorporating acquired and transformed knowledge internally.

In order to cope and enhance each ACAP dimension, Jansen, Van Den Bosch and Volberda (2005) argue that firms need to develop organizational mechanisms which enable them to synthesize and apply newly acquired knowledge. Thus, there are coordination mechanisms that increase the exchange of knowledge between sectors and hierarchies, like multitasking teams, participation in decision-making and job rotation. These mechanisms bring together different sources of expertise and increase lateral interaction between functional areas. System mechanisms are behaviour programs that reduce established deviations, such as routines and formalization. Socialization mechanisms create a broad and tacit understanding of appropriate rules of action, contributing to a common code of

communication.

### *Export performance*

Literature on export performance is extensive but arguably it has not yet achieved the consensus required to prescribe exporting strategies to small firm (Casey & Hamilton, 2014). Exporting is an early phase in the internationalisation model established by Johanson and Vahlne (1977, 2009), grounded on the assumption that new exporters can gradually engage with foreign markets, depending their exploitation strategy on knowledge and other resources. This export research, however, was not pertinent for small exporters (Casey & Hamilton, 2014), since its unit of analysis was large firms.

In a fairly recent literature review, Sousa et al. (2008) conclude that, along with internal capabilities and competencies, the main determinants of export performance are firm size and international experience. Actually, internationalization processes have mainly been studied with reference to multinational corporations and less for SMEs, because smallness is usually considered a problem, as these firms often have a disadvantage in resource access (Musso & Francioni, 2014). This, however, does not support small firm managers in search of a growth strategy through exporting.

Conversely, the number of small firms operating in international markets has increased and represents the majority of firms in most countries, and therefore, they play an important role in the economic growth of their countries. As a consequence, the internationalization process of SMEs has become a topic of academic and governmental attention (Musso & Francioni, 2014).

Hence, the development of exports is of great importance, both at macro and micro levels. Exporting contributes to economic and social development of nations, helps the industry progress, increases productivity and creates jobs. At firms level, through market diversification, exports provide an opportunity for them to become less dependent on the domestic market, gaining new customers, exploiting economies of scale and achieving lower production costs while producing more efficiently (Okpara, 2009).

Exports is a more attractive way to enter international markets, especially for SMEs, in comparison with other alternatives, such as joint ventures, which involve spending a large number of resources (Dhanaraj & Beamish, 2003; Fuchs & Köstner, 2016; Piercy, Kaleka & Katsikeas, 1998), does not create high risk and commitment and allows greater flexibility in adjusting the volume of goods to different export markets (Lu & Beamish, 2002).

On one hand, export activity fulfils certain business goals, which may be economic (such as increasing profits and sales) and/or strategic (such as diversification of markets, gaining market share and

increasing brand reputation) (Cavusgil & Zou, 1994). On the other hand, export motivation may result from proactive or reactive actions. For example, proactive actions are advantage of profit, introduction of a single product, technological advantage, exclusive information, commitment of management, tax benefits and economies of scale. Reactive motivations are identifying competitive pressures, excess production capacity, sales decrease or saturation in the domestic market and proximity of customers and landing ports (Stouraitis et al., 2017; Wood & Robertson, 1997).

#### *Hypothesis derivation*

Teece *et al.* (1997, p. 516) defined dynamic capabilities as the “firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments”. Dynamic capabilities thus reflect firms’ ability to achieve new and innovative export forms. ACAP is a dynamic capability found in organizational processes that enables firms to reconfigure their core resources, react to environmental dynamics and build competitive advantage (Zahra & George, 2002). The heterogeneity of resources and capabilities leads to performance imbalances and affects firms’ ability to design and implement competitive strategies (Barney, 1991; Peteraf, 1993). Thus, this theory suggests that heterogeneous resources and capabilities have a direct effect on firms’ performance (Makadok, 2001; Teece et al., 1997). Thus, we tested the following hypothesis:

*H1: Absorptive capabilities influences positively with export performance.*

## **METHODOLOGY**

### *Sample and data collection*

The population of this empirical study has been drawn from Portuguese textile industry firms. Questionnaires were used as primary data sources and were carried out over the period of February 16 to April 30, 2016. The identification of companies was done through the Portugal’s Textile Association (Associação Têxtil de Portugal) database (ATP, 2014). So, in this study we use a non-probabilistic and convenient sampling.

A total of 247 complete and validated questionnaires accounting for 25% per cent of the population were obtained. This response rate is considered quite satisfactory, given that the average of top management survey response rates are in the range of 15%-20% (Menon & Bharadwaj, 1999).

### *Statistical analysis*

We used PLS-SEM path modelling to test our hypothesis, specifically the software SmartPLS 3.0 (Hair et al., 2013; Sarstedt et al., 2014). We believe that the PLS-SEM path modelling is best suited to estimate our research model since: (1) this study focuses on prediction and explanation of constructs variance

(in our case 2), (2) our research model has a complex structure, (3) the relationship between absorptive capabilities and export performance, (4) this study uses first and second-order reflective constructs and (5) the sample (n=247).

### *Measures*

This study uses well-validated scales from previous studies to operationalize the key constructs and adapted them to the particular context of our empirical setting.

Independent variable - According to Zahra and George (2002), ACAP construct is divided in Potential Absorptive capabilities (PACAP) e Realized Absorptive capabilities (RACAP). To measure this construct we use Jansen et al.'s (2005) scale.

Dependent variable – This construct was measured using Okpara's (2009) measurement instrument.

All constructs were assessed on a five-point Likert scale.

## **RESULTS**

### *Non-response bias and common method bias*

In this study we performed a univariate test of significance (*t*-test), to examine existing differences between respondents who answered our questionnaire quickly and those who did not. The results ( $p < 0.05$ ) showed the absence of significant differences between the two groups of respondents. Hence, we can assure that our sample is free from non-response bias. The methods used to reduce the risk of common method-bias were several. In the survey design itself, already validated in previous investigations, short and concise items were used to reduce misunderstandings. A pre-test was conducted to a group of several university experts and business specialists. Similarly, following the recommendation of Podsakoff et al. (2003), a distribution of items of dependent and non-consecutive independent variables was used. Finally, before assessing the relationships between dependent and independent variables, Harman's single-factor test was performed. Unrotated factor analysis using the eigenvalue-greater-than-one criterion revealed six factors, the first explaining 17.0 percent of the variance. This suggests that common method bias is not a serious threat to the validity of our study. Next, in order to analyse and interpret the PLS-SEM results, we will: (1) assess the measurement model and (2) evaluate and test the structural model.

### *Evaluation of measurement model*

Results from Table 1 show that the measurement model meets all general requirements. First, all reflective items have a load higher than 0.707, which means that the reliability of individual indicators (loading<sup>2</sup>) are higher than 0.5. Second, all composite reliability values and Cronbach's alpha values are

higher than 0.70, suggesting acceptable model reliability. Third, the average variance extracted (AVE) values of all constructs are higher than 0.50, indicating an adequate convergent validity and implying that our set of indicators represent the same underlying construct (Hair et al., 2013).

| First-order constructs                  | Items | Factor loading | Item loading <sup>2</sup> | Cronbach's Alpha | Composite reliability | AVE   |
|---|-------|----------------|---------------------------|------------------|-----------------------|-------|
| ABSORPTIVE CAPABILITIES<br>Acquisition* | ACAQ1 | 0.729          | 0.531                     | 0.782            | 0.850                 | 0.532 |
|   | ACAQ2 | 0.694          | 0.482                     |                  |                       |       |
|   | ACAQ3 | 0.830          | 0.689                     |                  |                       |       |
|   | ACAQ4 | 0.687          | 0.472                     |                  |                       |       |
|   | ACAQ6 | 0.698          | 0.487                     |                  |                       |       |
| Assimilation                            | ACAS1 | 0.819          | 0.671                     | 0.847            | 0.907                 | 0.766 |
|   | ACAS2 | 0.932          | 0.869                     |                  |                       |       |
|   | ACAS3 | 0.871          | 0.759                     |                  |                       |       |
| Transformation*                         | ACTR2 | 0.827          | 0.684                     | 0.874            | 0.908                 | 0.665 |
|   | ACTR3 | 0.873          | 0.762                     |                  |                       |       |
|   | ACTR4 | 0.795          | 0.632                     |                  |                       |       |
|   | ACTR5 | 0.854          | 0.729                     |                  |                       |       |
|   | ACTR6 | 0.721          | 0.520                     |                  |                       |       |
| Exploitation                            | ACEX1 | 0.791          | 0.626                     | 0.897            | 0.922                 | 0.663 |
|   | ACEX2 | 0.765          | 0.585                     |                  |                       |       |
|   | ACEX3 | 0.866          | 0.750                     |                  |                       |       |
|   | ACEX4 | 0.836          | 0.699                     |                  |                       |       |
|   | ACEX5 | 0.703          | 0.494                     |                  |                       |       |
|   | ACEX6 | 0.909          | 0.826                     |                  |                       |       |
| EXPORT PERFORMANCE                      | EP1   | 0.873          | 0.762                     | 0.927            | 0.945                 | 0.775 |
|   | EP2   | 0.889          | 0.790                     |                  |                       |       |
|   | EP3   | 0.837          | 0.701                     |                  |                       |       |
|   | EP4   | 0.915          | 0.837                     |                  |                       |       |
|   | EP5   | 0.887          | 0.787                     |                  |                       |       |

\* The variables ACAQ5 and ACTR1 corresponding to Acquisition and Transformation factor's were excluded from the measurement model due to low values. Accordingly, values lower than 0.7 generate a low correlation and threaten the reliability of the scale.

Table 1. *Measurement model*

Finally, regarding discriminant validity, this paper presents two necessary approaches: 1) the first approach suggests that the AVE should share more variance with its assigned indicators than with any other construct - Fornell-Larcker criterion (Fornell & Larcker, 1981); and 2) the second approach suggests that no item should have a higher factor load with another construct than with the one which is assign to measure. The results shown in Table 2 confirm the existence of discriminant validity in our study.

| Construct/<br>Dimension | 1.    | 2.    | 3.    | 4.    | 5. |
|-------------------------|-------|-------|-------|-------|----|
| 1. Acquisition          | 0.730 |       |       |       |    |
| 2. Assimilation         | 0.307 | 0.875 |       |       |    |
| 3. Exploitation         | 0.357 | 0.656 | 0.815 |       |    |
| 4. Export performance   | 0.390 | 0.466 | 0.584 | 0.880 |    |

|                   |       |       |       |       |       |
|-------------------|-------|-------|-------|-------|-------|
| 5. Transformation | 0.412 | 0.620 | 0.848 | 0.640 | 0.816 |
|-------------------|-------|-------|-------|-------|-------|

Table 2. *Latent constructs correlation (Fornell-Larcker Criterion)**Evaluation of structural model*

Once the measurement model is defined and validated in all its components, we will proceed and create the second order model, following previous research (e.g., Zahra & Garvis, 2000), where the latent variables of the measurement model behave as constructs' measurement variables. Specifically, Absorptive capabilities (acquisition, assimilation, transformation and exploitation) and Export performance.

In the following Tables 3 and 4, we present the results of reliability, convergent validity and discriminant validity corresponding to the second order model. All data confirm the strength of our model.

| Construct               | Cronbach's Alpha | Composite Reliability | AVE   |
|-------------------------|------------------|-----------------------|-------|
| Absorptive capabilities | 0.849            | 0.900                 | 0.694 |
| Export performance      | 1.000            | 1.000                 | 1.000 |

Table 3. *Convergence validity and reliability indexes of the second-order model*

| Construct               | Absorptive capabilities | Export performance |
|-------------------------|-------------------------|--------------------|
| Absorptive capabilities | 0.662                   |                    |
| Export performance      | 0.650                   | 0.880              |

Table 4. *Discriminant validity index of the second-order model*

Since the fundamental objective of our PLS-SEM technique is the prediction of Export Performance, the quality of our theoretical model will be determined by measuring the strength of each path ( $\beta$ ), that is the relationship between Absorptive Capability (AC) in the predictability of the endogenous construct Export Performance (EP).

Results from Table 5 indicate that firms with dynamic capabilities achieve superior export performance, thus AC, that is the acquisition, assimilation, transformation and exploitation influence significantly and positively export performance (EP), supporting H1 ( $\beta=0.479$ ;  $p<0.001$ ).

| Hypothesis   | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P values | 2.5%  | 97.5% |
|--------------|---------------------|-----------------|----------------------------|--------------------------|----------|-------|-------|
| H1. AC -> EP | 0.479               | 0.487           | 0.039                      | 12.306                   | 0.001*   | 0.413 | 0.567 |

\* $p<0.001$ Table 5. *Significant testing results of the structural model path coefficients*

## DISCUSSION AND CONCLUSIONS

The main goal of this study was to analyse the influence of absorptive capabilities on export performance. The central context of this research is on SMEs, which constitute the vast majority of firms in Portugal, as in most world economies. Thus, we conducted an empirical research based on a sample of 247 firms, which were applied a questionnaire in order to exploit data to test hypothesis, using proceedings and statistical techniques. It is important to note that firms evaluated intangible resources, absorptive capabilities, innovation and export performance relative to their major competitors in the export market(s), so the results should be interpreted based on these two aspects.

This study demonstrated that the firms' absorptive capabilities has a positive and significant influence on their performance. The results of this study does confirm that dynamic capabilities, specifically absorptive capabilities, enable firms to achieve superior long-term performance (Teece, 2007) (H1 supported). Thus, the analysed firms are able to acquire, assimilate, transform and dynamic capabilities.

This ones can take a variety of forms and be involved in different functions, but the most important common characteristics are that they are higher level capabilities which provide opportunities for knowledge gathering and sharing, constant updating the operational processes, interaction with the environment, and decision-making evaluations (Easterby-Smith, Lyles, & Peteraf, 2009). However, the existence of common features does imply that any particular dynamic capability is exactly alike across firms, rather they could be developed from different starting points and take unique paths (Eisenhardt & Martin, 2000).

Theoretically, this study contributes to the literature of absorptive capabilities that leverage firm performance (e.g., Cabral et al., 2015; Damanpour et al., 1989). We also highlight the contribution of this study to the theory of strategic management. It is known that strategy includes deliberate and emergent initiatives adopted by management, comprising resource and capabilities used to improve business performance (Nag, Hambrick & Chen, 2007). In order to remain competitive, firms must assess which strategic determinants give them an advantage over their competitors. The findings are a contribution to clarify the influence of intangible resources and absorptive capabilities in small firms export performance.

Additionally, our findings provide guidance to business practitioners, since they indicate that absorptive capabilities are predictors of export performance. Firms are a bundle of resources and capabilities (Peteraf, 1993), it is essential to understand and identify which resources are relevant to gain competitive advantage and superior performance. Business owners must be able to systematically analyse the changes that arise in their target market(s) and to incorporate this

knowledge into their processes, to identify the present and future needs and market trends, anticipate changes in demand and seek new business opportunities.

By building on the literature of strategic management, this study aims to support the strategic development of business management policies designed to increase firms' performance in foreign markets and add value to the current context of change.

The fact that the research does not consider the effect of control variables such as age, location and target market of the respondents can be seen as a limitation. Also, the fact that the sampling is non probabilistic and convenience is a limitation. Therefore we advise prudence in the generalization of results.

Further studies with a longitudinal perspective would be of added value to investigate why these differences persist. In other words, to find how and why some small exporters become highly successful while others, in the same industry, struggle to raise their export strengths.

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## QUALITY MODELS FOR SMALL & MEDIUM ENTERPRISES

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### ABSTRACT

**Purpose:** This study is focusing on the applicability of an excellence model suitable to an SME and the elements that should characterize such a model. **Methodology:** A survey on literature was conducted to point out the characteristics that different excellence models have and point out the ones that are more suitable to an SME. The description of the S-P model, a quality excellence model suitable for an SME, was presented and used having enriched its variables with the advanced technology variable, making it even more adaptable to the special characteristics of an SME. **Findings:** The conclusions derived refer to the development of a revised version of the S-P model where advanced technology as an additional variable would improve the SME's competitiveness and its Quality Excellence.

*Keywords: Total Quality Management (TQM), Small Medium Size Enterprises (SME), Quality Model, Quality Elements, Technology, ISO Certification,*

### INTRODUCTION

It is accepted that the principles and the quality elements that characterize the total quality management (TQM) are mostly applied to large organizations that are using models as the EFQM Excellence Model, the Baldrige National Quality Award (MBNQA), the Deming Prize and other National Quality Awards.

For SMEs, the close relationship, and the excessive involvement that top management has on the day-to-day operations had as a result the relaxed adoption process of the quality elements. This process is supported and from their preference to flexibility and not formality that is mostly required from all the quality models including and the ISO Model (Quality Certification Standards) (Pinho, 2008).

The aim of this paper is to identify a model that can fit to an SME's characteristics and its objectives are to identify the areas that the model will improve the SME's quality level and offering innovative products and services that will make them even more competitive.

More than forty international business excellence awards and fifty quality awards exist, just in America are using some common criteria and measurements (Sampaio et.al, 2012). Though the question arises if those criteria fit and are applicable to SMEs? Competition that SMEs face during the latest years and

their need to maintain the role of subcontractors to large companies makes them have no option than to incorporate quality in their operations and their strategic plans. Thus, there is a need for them to develop a model that will incorporate assumptions suitable to the context of SMEs. A model that will be capable of supporting the internal and the external characteristics of SMEs. The internal ones that their role is to improve the SMEs processes that would result in an increase in their market value and the external ones that will bring an improvement in customers' satisfaction. This study is also considered as being one of the few studies that have tried to examine the role of a quality model to an SME as a mean of improving its quality level and its productivity.

## **THEORETICAL BACKGROUND**

A quality model's objective is to establish the criteria based on which the performance of an organization would reach the excellence level. A quality model's standards need to be strictly followed by companies, though the competition they face and the growth they search requires from them to be flexible and differentiated in their decisions and in their actions (Sampaio, et.al., 2012). The role of an award model is to assess and improve a company's operations. This would introduce and improve the methods and the techniques that will contribute in achieving their quality strategy and their continues improvement objective (Sampaio et al., 2012). A quality model is not just a tool that will help the company to solve its daily problems but instead it could develop and support more its infrastructure in order to achieve continues improvement that will support further the company's competitive advantage.

From the comparative analysis conducted by Sampaio et.al., (2012) among all different quality models used, it became clear that a single World Quality Award is needed considering that all models are using the same or similar set of values, principles and criteria.

The distinction of hard and soft elements participating in a quality model is supported from mostly all the quality models presented in literature (Choi et al., 2009). The reason for that is the inability of all the rules, the procedures and the manuals implemented and used, using only the hard elements of a quality model, to prevent humans to behave the way they consider as being the most appropriate. Also, in a continuously changing environment, the way humans respond to changes is not always easy and definitely not predictable. The key to cope with these issues is the organizational culture (Soft element) and the appraisal methods established in the organization. The need to find a way to affect and support the human behavior not by imposing rules and procedures but to improve the company's organizational quality culture is the answer (Wilson, 2015).

Quality Culture is defined from a set of assumptions a group of humans have established in an organization in order to perceive, think and feel in a reliable and correct way. But to change that culture

in a company, you need to change the assumptions that are related to the human perceptions, thoughts, feelings and behavior that constitute the soft quality elements (Wilson, 2015).

A model that incorporates the soft and the hard elements is a Quality Maturity Model (QMM) (Wilson, 2015). As a model, it tries to incorporate a roadmap that will show the way a company should follow in order to establish its quality culture. Is a framework that will guide all processes in accordance of their importance accompanied from an assessment tool that will easily assess all the inputs and outputs or any combination of them. It also introduces the quality culture elements incorporated to the company's environment, including the use of a common language and a common vision with the whole community. The use of such a model (Business excellence model) will introduce to a company the best practices and tools, supporting the development of its quality plan and a strategy. The achievement of the company's goals would also be supported from the practices and tools implementation and from imposing self-assessment and continues improvement processes to its operations (Wilson, 2015).

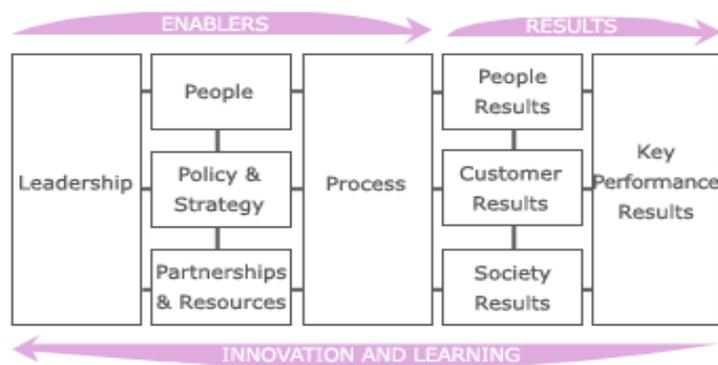


Figure 1: The EFQM Model (2010)

The EFQM Excellence model established in Europe in 1988 is using as criteria the enablers and the results defined. The Leadership, the strategy, the people, the partnerships, the resources, the people, the products and the services play the role of the enablers and the customers, the society and the people will characterize the results.

The EFQM model (**Σφάλμα! Το αρχείο προέλευσης της αναφοράς δεν βρέθηκε.**) as a diagnostic tool can be used in identifying learning and improving opportunities for a company. The criteria used in the model are the leadership, the people, the strategy, the partnerships and its resources, the processes, the products and services representing "the enablers" followed by the people results, the customer results, the society results and the key results supporting "the results". The model's implementation process should be particularly designed for an organization that has already decided on its needs and benefits expected. Of course, it is important that the model should also take the necessary time in order to assess the company's performance and growth.

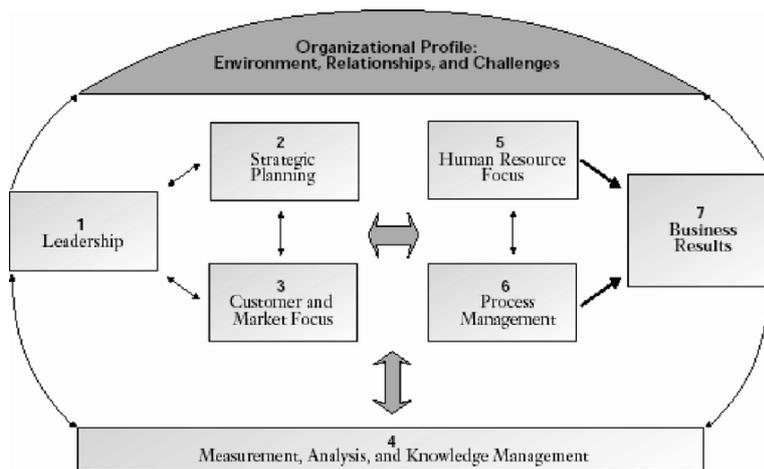


Figure 2: The MBNQA Model (2010)

Another model developed is the Malcolm Baldrige National Award (MBNQA). Its purpose is to encourage quality awareness and identify the quality characteristics that can lead a company to excellence. The models context has seven categories, as these are presented in Σφάλμα! Το αρχείο προέλευσης της αναφοράς δεν βρέθηκε., that give strategic directions to management. Those categories are the following: leadership, strategic planning, customer focus, measurement, analysis and knowledge management, workforce focus, process management and results (Sampaio, et.al., 2012). Those categories are the ones that will provide the needed strategic directions a company needs in achieving excellence. Those directions will contribute to the development of the criteria used in measuring and valuing the operational and financial self-assessment activities. The self-assessment activities will become the mean for establishing a quality management system. The role of the model is to understand and improve the quality elements implemented and to continuously improve them in case there is a need to do so. (Sampaio, et.al., 2012)

The Deming Prize is an award that is awarded to companies that have successfully implemented the TQM elements. There is no model supporting this prize but instead there are ten themes, equally weighted, that a company should be evaluated upon as these are shown in Figure 20 .

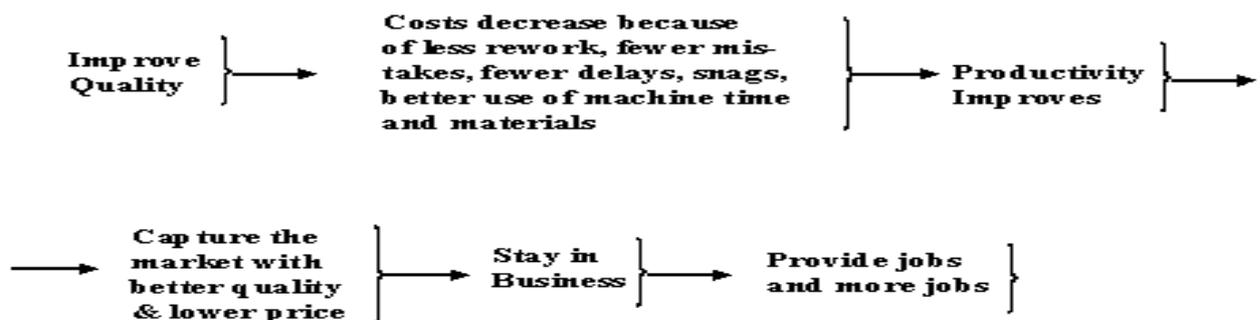


Figure 20: Deming Prize (Wayhan, et.al., 2010)

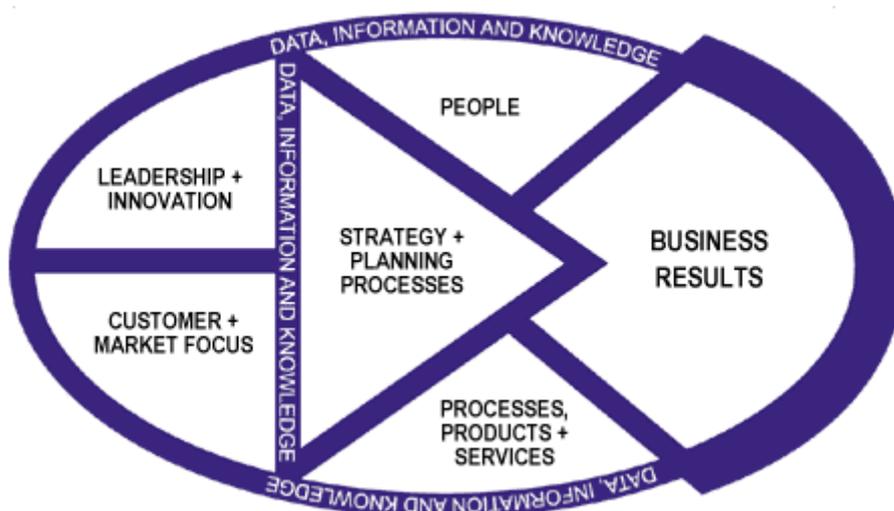
All the above quality award models were mostly applied to large organizations and they were developed according to that context (R.Schumacker, 2001) The need to adjust those models to the characteristics and the needs of an SME is presented from a number of authors (Lewis, et al.,2007; Fening, et al., 2012).

The SMEs are characterized from their informal, flatter and centralized structure. A number of empirical studies (Regan, 2000; Williams et al., 2006) have examined the adaptation and use of flexible systems for SMEs. Flexibility refers to the ability of a company to route, schedule, dispatch, match and sequence its operations. For the moment a quality model is developed for an SME, the techniques and the criteria used to measure and evaluate quality, could be the same? Is the use of a model designed to be applied in large companies would have as a result the consumption of a large number of “scarce” for an SME resources? The above questions reveal the need for the development of a quality model suitable for the needs of an SME that will manage to implement adequately and sufficiently the principles and the standards of quality and TQM in particular (Sainis et al., 2019).

## CHARACTERIZING A QUALITY MODEL, SUITABLE FOR AN SME

The flexibility and adaptability of SMEs to environmental and market changes is what creates doubts regarding the development of a model that will try to link the strategic statements of an SME to its operations that are characterized by continuous improvement activities.

An adapted EFQM model suitable for being applied to SMEs is supported from the Business Excellence Framework (BEF) shown in Figure 21 (Hafeez, et.al., 2006).



**Figure 21: Business Excellence Framework**

The starting point for TQM implementation is to set the quality processes through which the implementation of a quality assurance model (i.e. ISO 9001:2005) will be established. Though the establishment of those processes to an SME are more temporal and less clear than they are in large

organizations. Also, the ability to implement those processes could reduce the ability of SMEs to respond on time to different market or environmental changes. Though it is easier and faster for them to develop a team that will develop the SMEs process structure due to their informal and cross functional working style they usually establish (Sainis et al., 2016b).

In all the excellence models the human factor is considered as a homogeneous and numerous unit; though for SMEs there is a traditional loyalty between customers and employees created from their direct contact. So, the customer's voice is already included into an SME's operations without any additional procedures adopted that would utilize more resources and make the firms operations more bureaucratic.

The SME's environment is characterized from a limited number of resources and for implementing a quality model they need an adequate diversity of resources that are, most of the time, not available by SMEs. Though the ability of SMEs to take fast decisions may reduce the time needed for implementing a quality system (TQM) in their operations. To that, leadership commitment and the vision for accomplishing the TQM standards will positively affect the quality implementation to an SME. In addition, the experience and the knowledge of the leaders and their available time to cope with all the revealed operational, financial and structural issues, would determine the level of significance in the implementation of a quality model to an SME.

As McAdam, (2000) concluded, the strategic goals, the people involvement, the processes and the measures were the most important elements that should be included in a quality model that was going to be implemented to an SME. In particular the (a) the business goals should be strategically connected to the TQM elements, (b) the customers satisfaction and participation should have a primary role in the model, (c) the employees should participate and be familiar with all the levels and the elements of the model, (d) the purpose of the model should be understood from the management and be committed to it and finally (e) the units of measuring the level and the importance of the processes implemented should be clearly defined and understood.

For the development of a quality strategy, suitable for an SME, new methods were developed such as the balance score card and the process dashboards, which were both related to the newly developed six sigma model ((Prajogo and Brown, 2006; Sainis *et al.*, 2016). When developing their quality strategy and quality plan, SMEs could benefit from a step by step management approach. This would assist an SME to form a basic management system with aggregate flexibility and agility, which could easily be controlled and maintained, irrespective of the resources availability (Azizan, 2007; Sinha et al., 2016).

The Princer's model shown in Figure 22, developed from an unknown source attempts to relate quality with the impact it has on enlarging a company's market share and achieving possible cost reductions. That is a main objective for an SME that enters into a new market (Saunders and Preston, 2006).

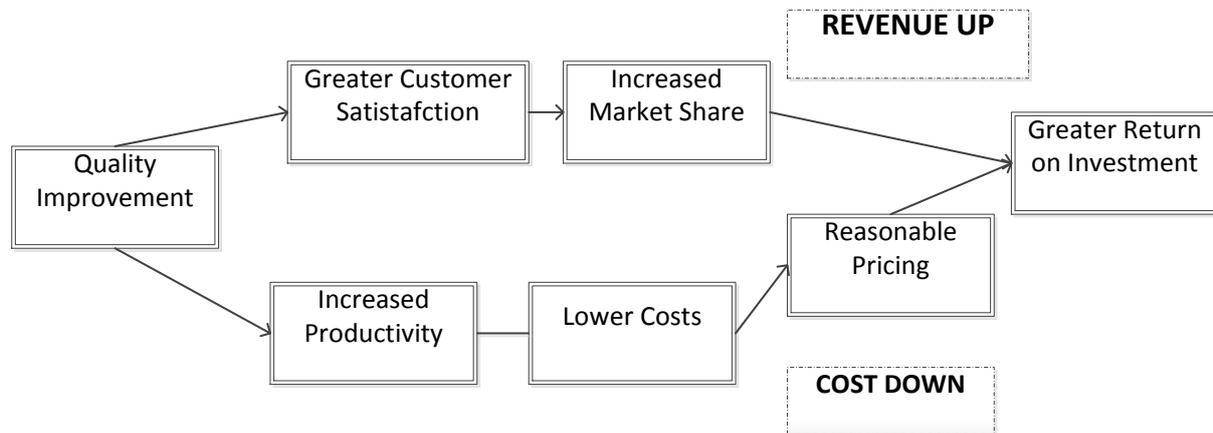


Figure 22: Princer Model

Pincer model was followed by the S-P model developed by Saunders and Preston (2006) that constitutes an elaboration of what Deming used as his main argument that is referring to the use of statistical tools as being the main source that will bring quality to a company.

The authors pointed out that a series of models have been developed capable of examining the level of TQM implementation; but all were *descriptive*, meaning that they did not prove the existence of any logical relationship between each different component used in the models. Such models were the Joiner's model (the triangle-1995) and the Juran's model (the trilogy-1989).

More descriptive TQM models, with closely related criteria were introduced to the market, like the ones presented by Lewis (2007), Dale (1994) and Holmegaad (1990) which were even more standardized, and constituted the basis for the national quality awards, like the Malcolm Baldrige National Quality Award (MBNQA), the Australian Quality Award (AQA) and the European Quality Award (EQA). These models were criticized from a number of researchers who recognized that for SMEs in particular there is no need for the development of a model that sets and examines a list of TQM characteristics, but for *a model that supports a logical chain of arguments* related to the TQM characteristics (Garvin, 2000; Saunders and Preston, 2006). This logical chain of arguments should give the opportunity to researchers to develop a model that will be suitable for SMEs, given their deficiencies they are characterizing from. Research has revealed that the deficiencies and limitations that characterize an SME is what makes the implementation of TQM being so difficult.

As a general conclusion regarding the limitations that SMEs have in implementing TQM is in the scarcity of their resources. In particular and from the literature survey conducted by (Majumdar & Manohar, 2016) it was revealed that a series of barriers prevent the full implementation of TQM to SMEs as these are presented in **Σφάλμα! Το αρχείο προέλευσης της αναφοράς δεν βρέθηκε..**

The financial and resource constraints that include the human power, the skills, the time and the technical and managerial expertise are the first and more important barriers. But except from the scare

resources the lack of management's commitment and the appropriate framework that supports the TQM the following barriers could cause the limited implementation of TQM to SMEs.

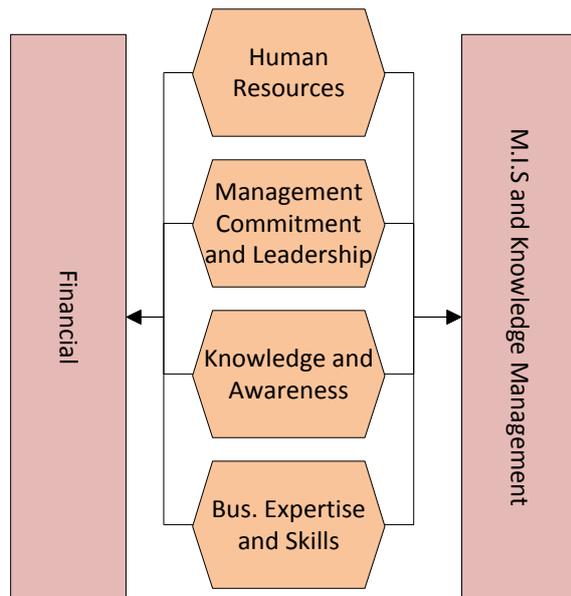


Figure 6: Generally Accepted Constraints in implementing TQM to SMEs (Majumdar & Manohar, 2016)

Barriers like the inadequate management leadership, the weak employee's culture, the low quality in personnel and technical and process management, the company's infrastructure and the informal internal communication could increase the difficulty of implementing TQM to SMEs.

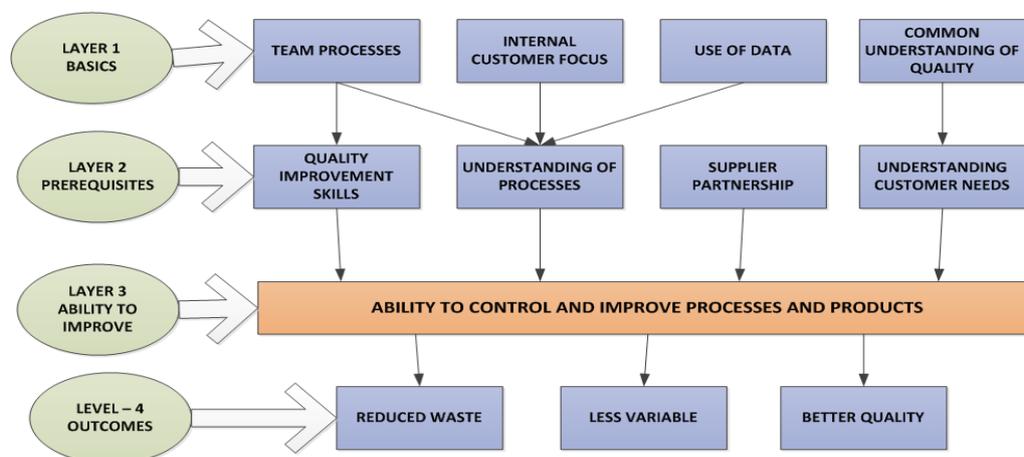
In identifying the set of problems that SMEs face in the implementation of TQM another attempt was presented in the survey conducted by Vasilevska and Rivza (2018). In this survey the first and most important factor that caused problems in the QMS implementation was the cost of developing and implementing it and the training of the needed personnel. The next importance factor was the cost of certification followed by the long time it takes to implement a QMS. Another factor was the training of the managers and process (production) staff on the quality standards followed by the cost of maintaining the QMS and as last factor was the people's low motivation. Other constraints that caused a decrease in the SMEs competitiveness were the technological obsolescence, the not so clear knowledge of the market, the unorganized operations, the unorganized supply of resources, the limited or no credit supply, the lack of facilities, and the inefficient market channels (Swamy and Nanjundeswaraswamy, 2017).

The model developed by Saunders and Preston, (2006) is the one that emphasized more the logical chain of arguments and stated that the studies conducted till then did not take into consideration the external economic factors, but instead took into account only the company's overall performance through the sole examination of the company's sales turnover or its return on investment. The model they developed would then be applied to the companies already in their journey towards total quality,

and specifically, to those with a quality assurance certificate that wished to measure the extent to which TQM practices were implemented in their environment and in their operations.

That model could also be applicable in different industries, different cultures and in different economic environments. The S-P model, as it was named, and its variables were considered the best indicators of the degree of TQM implementation in an SME ever used. The model's reliability and validity guarantee the quality of the results derived from its use (Saunders and Preston, 2006).

The model is using a set of components that shows the activities and the attributes of a company that has successfully implemented TQM. All these components are directly connected or connected through the formation of logical sequences. *The components used are classified into four groups* (Figure 23). The first group, consists of the basic characteristics of TQM that are also shown in Joiner's triangle; the second group, consists of the results derived from the use of TQM's basic characteristics the objective of which is to reinforce improvement. The third group, consists of the control procedures that are focused on the improvement of processes, products and services; and the fourth one offers the outcome which is also related to company's ability to further improve. The last group incorporates what Pincer included in his model regarding the reduction of its costs and the increase in its customer's satisfaction.



**Figure 23: The S-P model (Saunders and Preston, 2006)**

The model's vulnerability is its lack of a feedback loop. The authors clearly stated that the purpose of the model is not to describe the process of implementation, but instead to recognize the value that TQM adds to a company's overall value.

The S-P model is used and applied in different ways (a) in order to compare and support the selection of the quality elements and their factors related to the successful implementation of TQM, (b) compare, and support the methodology used in measuring the implementation level of TQM in an SME.

Both the external and the internal environments that surround the model elements may influence their relationship and the way they will behave and function.

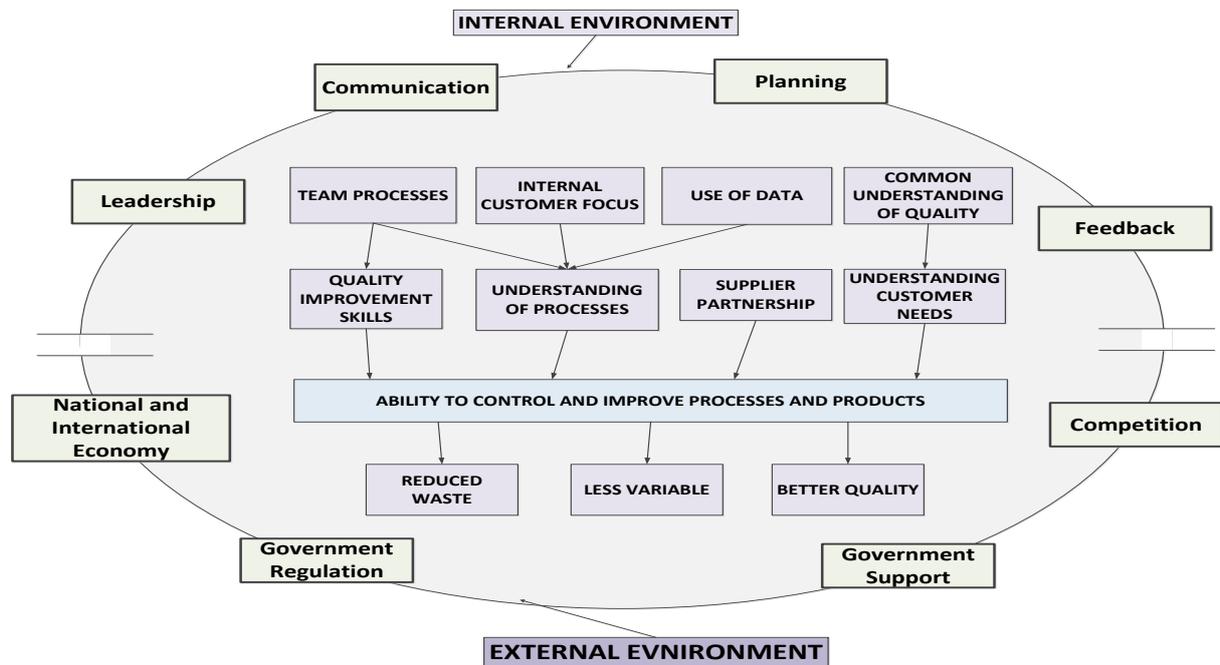


Figure 24: The S-P model and the Environment (Saunders and Preston, 2006)

Strategic and operational planning that will combine and coordinate each individual components in the model, is also needed. This will further support the links, as these are shown in figure 8, in the model and make it function efficiently producing the expected TQM benefits.

Additionally, the external environment will also contribute to an SME's ability and desire to continue with the implementation of TQM. Saunders and Preston (2006) believe that the external environment is what will influence an SME's financial and quality achievements. Specifically, the economic and competitive environment, the cultural trends and the valid government regulations that will influence the way TQM is adopted.

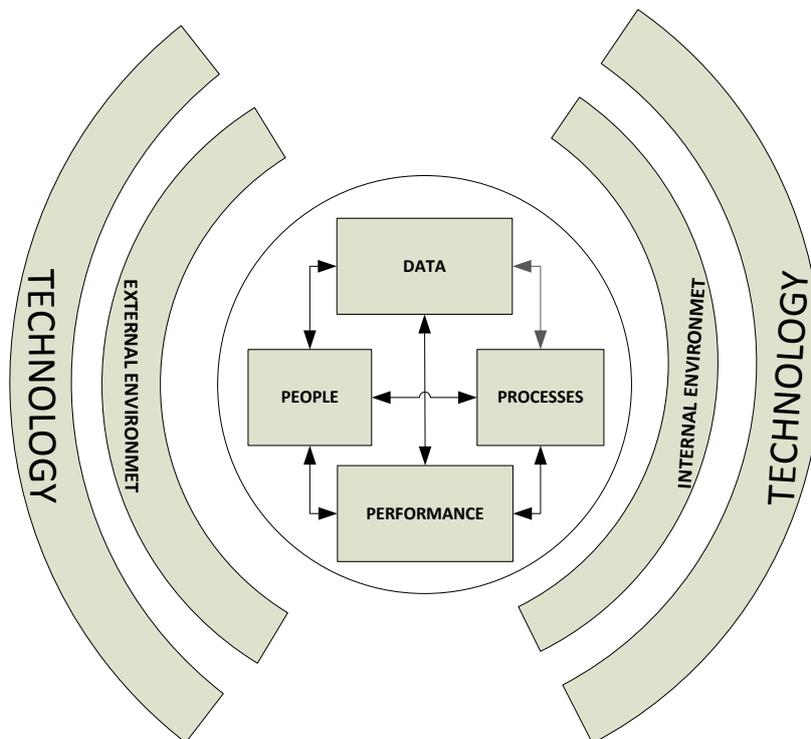
## TECHNOLOGY – THE MISSING FACTOR

Technology and TQM are complementary features and are both essential for developing a business strategy for a large organization. Technology is a factor that is missing from the S-P Model and is the one that could make the difference especially in a period where competition is becoming more global and more aggressive. Introducing advanced technological features in an SME's organizational and production framework could contribute in overcoming the limitations that conventional technologies have and are related to a further use of the economies of scale concept, reducing more the volume and the cost of producing the products or services (Swamy and Nanjundeswaraswamy, 2017).

The more advanced technologies are those that can customize the production variety, the frequent design changeovers, the rapid processing of design, the assembly, the material handling and the market

information (Subrahmanya, 1997), giving the opportunity to SMEs to apply the economies of scale reducing their cost of production in a low activity level.

Considering that SMEs are more flexible with less bureaucratic procedures, not so geographically wide spread, with limited communication channels and characterized frequently with informal processes, following an owner/manager type of leadership with less traditional limits, advanced technology can be more quickly and easily adopted by SMEs. The implementation of advanced technologies could change the company's demographic characteristics like the owner's characteristics, the expansion plans (if any) and the development of any existing or new alliances and networks developed by the company's management team (Keramati & Albadvi, 2009)



**Figure 25: The TQM for SMEs Model (Developed by the authors)**

From the analysis developed in the survey conducted by Keramati & Albadvi (2009) the positive significance is revealed between investing in technology and in IT particularly with the TQM implementation level adopted by an SME. The areas where improvements were recorded were the human resource management area, the leadership area, the planning area and the resource utilization (Figure 25).

The use of technology being supportive to TQM is what will make its implementation more applicable for an SME and will support and improve further its performance. The direct relationship that exists between the information technology and the improved strategic planning is what will support further the implementation of all those applications (Quality) that will enhance an SME's business competitiveness (Keramati & Albadvi, 2009).

## IMPLICATIONS AND CONCLUSIONS

This paper tried to investigate how the excellence models could implement quality and TQM elements to an SME by:

- Reviewing literature that is focusing on the excellence models that were applied to SMEs and
- Proposing a theoretical framework, based on the S-P excellence model suitable for implementing quality and TQM elements to an SME.

It is important to note that there are many practical implications of the results derived from this study. The implications are related to the assistance offered to practitioners, managers, and decision makers to improve further their company's productivity and its competitiveness through implementing TQM practices. Accepting that TQM is a management philosophy, a company and its management team that wants to implement that philosophy in order to change its entrepreneurial culture it should also accept the risk related to all the available opportunities they will face. This will lead them to the transformation of their organization toward new levels of excellent horizons.

The role of technology (advanced) as part of the TQM elements will facilitate and improve the HR management and leadership of an SME that would lead to an improvement of its strategic plan and resource allocation that will further increase the SME's performance indicators.

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## TALENT MANAGEMENT AND RESPONSIBLE LEADERSHIP IN LUXEMBOURG

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### ABSTRACT

The objective of this research is to study the link between talent management and responsible leadership in Luxembourg. For the purpose of this, the method used was first a review of the extant literature and second a qualitative study, where 14 semi-structured interviews were conducted mainly in summer/autumn 2018 with the objective to confirm the findings from the literature. Respondents were mainly asked what responsible leadership is for them, and what talent management, what the link is between the two, and what the cultural peculiarities following Geert Hofstede (2010) are in Luxembourg. Parts from the interviews are reprinted. A discussion and implications about both talent management and responsible leadership follows, comprehending needs for change and innovation, with the Luxembourgish language as identifier. Conclusion, limitations of this study, ideas for further research and references follow.

*Keywords: Talent management, Responsible leadership, Luxembourg*

### INTRODUCTION

This study is the combination of research about responsible leadership and talent management in Luxembourg. The aim of the present study is to determine the specificities in responsible leadership and talent management in Luxembourg. This is a mix of literature review and qualitative study, where 14 semi-structured interviews were conducted mainly in summer/autumn 2018 to confirm the findings from the literature. The research questions are: A) What is your company doing in the field of 'responsible leadership' and 'talent management' in Luxembourg? B) What do you do to find the talent you are looking for? C) Once found, what do you do to keep the people? D) Please give some examples!

14 semi-structured interviews were performed in summer/autumn 2018. Convenience sampling was used. With the current research the author contributes to the existing knowledge by developing the theory of talent management. The author combines three existing theories, namely on culture (Hofstede, Hofstede and Minkov 2010), on responsible leadership (Maccoby, 2011) and on talent management (Lewis and Heckmann, 2006). Luxembourg is chosen 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 of research on talent management and responsible leadership theories.

After this introduction, the paper will describe Luxembourg's linguistic and cultural peculiarities. The second paragraph is a brief literature review on responsible leadership, and the third paragraph is on talent management, where the author offers a proposition. Paragraph 4 will describe the applied method: review of the extant literature and 14 semi-structured interviews in summer/autumn 2018. Paragraph 6 will present the results from respondents, reprinting parts of the interviews. Paragraph 7 contains the conclusions, discussion, and implication, as well as research limitations and further research opportunities. References and Appendix will conclude this paper.

## LUXEMBOURG

Luxembourg is a parliamentary democracy and a constitutional monarchy, and is the only remaining Grand Duchy in the world. Per statec (2019), on 1st of January 2019, Luxembourg's total population was 613,900 of which 322,400 (52.5%) were Luxembourgers and 291,500 (47.5%) were foreigners (statec, 2019); out of them 95,500 Portuguese, 46,900 French, 22,500 Italians, 20,000 Belgians, 13,000 Germans, 48,200 other EU countries, 45,400 other countries of the world (see <https://statistiques.public.lu/en/>). Domestic employment was 448,900 with 197,000 cross-borderers come to Luxembourg every day for work: 98,200 from France, 46,700 from Belgium, and 47,200 from Germany. Unemployment rate was 5.5% in 2019 and 2.4% in 2000.

With a total size of 2,586 km<sup>2</sup>, Luxembourg is one of the smallest countries in Europe: 82 km long and 57 km wide. It has 148 km of borders with Belgium, 138 km with Germany, and 73 km with France (The World Factbook, n.d.).

Luxembourg's motto is: 'Mir wëlle bleiwe, wat mir sinn' ['We want to remain what we are'].

Luxembourg has three official administrative languages: Luxembourgish, French, German (statec, 2018, Luxembourgish (Lëtzebuergesch) being the national language. The language situation being anchored deeply in the country's history (Schinzel, 2013) in the middle of Europe and between France, Germany and Belgium, the public education system is tri-lingual. In Kindergarten the language of instruction is Luxembourgish, in primary school it is replaced by German as language of instruction and in secondary school by French (Kraemer, 1995; Schinzel, 2014a; 2014b; Weber and Horner, 2008). Citizenship is only awarded to people who speak Lëtzebuergesch (Spizzo, 1995).

## RESPONSIBLE LEADERSHIP

“In times of great cultural change, such as the present, people need leaders to take them to a positive future” (Maccoby, 2007, p. 1). And: “There is only one irrefutable definition of a leader, and that is someone people follow”. Three questions arise from this definition: Why do people follow somebody?, and: How do people follow? Who are the leaders we need? Maccoby (2007) states, there are three types of leaders: the strategic leader, the operational leader and the network/bridge-building leader. However they all need to understand that not everybody is like them, on the contrary, that the key to success is understanding the diversity of people. Understanding people, and combing head and heart are central to Maccoby’s idea of responsible leadership (p. 14 15), as well as education, especially education of our children (p. 154). The importance of education is expressed in his introducing sentence: “Our prosperity and well-being depend on our ability to learn” (p. 133), and the question is asked: what can schools do? (p. 135). Some educational mottos are: “Work hard, be nice.”, “Team always beats individual”, “Never give up”, “I believe that success comes from doing the best I can do, not from winning” (p. 137). He describes the principles of the KIPP (Knowledge is Power Program): first: talented leadership, second: more time for sports, games, music, dancing, literature, third: quality of instruction, and fourth: shared values.

Emotional Intelligence is integral part of the ability to understand people: to understand what motivates them and how they think (p. 178).

2500 years ago Lao Tzu wrote about the ideal leader: The ideal leader is the one who helps people so that finally they don’t need him any longer. Then comes the leader people love and admire, then the leader they fear, then the leader who pushes people around. People will not trust a leader who does not trust them. The best leaders say little, and people say: we did it ourselves (p. 176).

Following Szekely and Knirsch (2005, pp. 628, 629) responsible leaders build sustainable relationships with all of their stakeholders, with the aim to achieve shared objectives. “Sustainability is about building a society in which a proper balance is created between economic, social and ecological aims”. This comprises the different leadership streams: authentic, ethical, servant and transformational.

Voegtlin, Patzer and Scherer (2012, p. 6) state: “Leaders (and followers alike) are increasingly confronted with heterogeneous cultural contexts, devoid of shared moral orientations or legal frameworks. As moral or ethical conflicts arise in the process of economic activities, business leaders are left without any orientation in regard to morally adequate action. In this situation the idea of value maximization often becomes the sole surrogate for moral principles. This problem is aggravated by the need to transcend the traditional, internally bound focus of leadership theory.” (Maak, 2007; Maak and Pless, 2006; Pless, 2007). Edgar Schein’s corporate culture survival guide (2009) is increasingly important, as well as his book on organizational culture and leadership (2010).

**Table 1 Summary of Responsible Leadership**

| What is Responsible Leadership for you?  |
|--|
| <p>1) Maccoby (2007): 3 types of leaders:</p> <ol style="list-style-type: none"> <li>1) The strategic leader</li> <li>2) The operational leader</li> <li>3) And the network/bridge-building leader</li> </ol> <p>2) The importance of education: KIPP: Knowledge is Power Program</p> <p>3) Emotional intelligence</p> <p>4) Lao Tzu (2500 years ago):</p> <ul style="list-style-type: none"> <li>- The ideal leader is the one who helps people so that finally they don't need him any longer.</li> <li>- Then comes the leader people love and admire,</li> <li>- the leader who pushes people around,</li> <li>- the leader people fear.</li> <li>- The leader people trust.</li> </ul> <p>5) Different leadership styles:</p> <ul style="list-style-type: none"> <li>- Transformational leadership (the motivator)</li> <li>- Transactional leadership (results oriented, rewards)</li> <li>- Autocratic leadership</li> <li>- Laissez-faire leadership</li> <li>- Democratic leadership</li> </ul> |

## GEERT HOFSTEDÉ'S CULTURAL DIMENSIONS

The author replicated Geert Hofstede's cultural dimensions study in Luxembourg in 2011 as her doctoral thesis 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).

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 2 Cultural Comparisons (Schinzel, 2017a)**

|     | 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  | Japan |
|-----|-----------------------|-----------------------|-------------------------------|-------------------|--------------------|------|------------|------------|-------|------|-------|------|-------|
| PDI | 29                    | 36                    | 40                            | 68                | 35                 | 35   | 68         | 61         | 50    | 38   | 80    | 40   | 54    |
| 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   | 46    |
| MAS | 54                    | 47                    | 50                            | 43                | 66                 | 66   | 60         | 43         | 70    | 14   | 66    | 62   | 95    |
| 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 | 4.0   |

## TALENT MANAGEMENT

There are different definitions what “talent management” is, it is difficult to come up with one single correct definition. “It is difficult to identify the precise meaning of talent management” say Lewis and Heckman (2006, p. 139). Talent management comprises first the variety of typical human resource management activities, including candidate selection, recruiting, development, training, career planning, succession planning. Second, talent management’s focus is on talent pool and the management of the progression of employees through different positions in the company. Third, talent management looks at talent in general, speaking about ‘war for talent’ and ‘highly competent performers’, the talent inherent in each person. (p. 141). Making talent management strategic is the objective of more recent authors (Kaufman, 2012; Chanda et al., 2007) and/or making it global (Minbaeva and Collings, 2013). There being 4 categories of employees, following their difficulty to be replaced and their value added: 1) Difficult to replace, high value added; 2) difficult to replace, low value added; 3) easy to replace, low value added; 4) easy to replace, high value added.

Social media, computer technology, cloud computing and globalisation (Guo, Rammal and Dowling, 2016) imply a different approach to strategic talent management (Oracle, n.d.). This is in line with Vrontis et al (2018) research on the impact of innovation and change on employee’s performance, claiming the need for change and innovation as determinants for success in organisations. Nearly 10 years earlier, Malaeb and Chanaron (2010, p. 1) say that “Talent is the only differentiator for company’s success in a global, complex, extremely competitive and dynamic environment”. Ambrosius (2016, p. 53) asserts that ‘employee turnover is one of the biggest challenges for multinational corporations’. Low and Ang (2012, p. 108) include Confucian Leadership in leadership research and talent management, claiming that “talent or human capital is the primary driver of any successful company, where the company provides for stable employment, security, fair pay and safety, and diversity, equal opportunity and the prevention of sexual harassment. Confucius said about talent: “Some seedlings spring up but never blossom, others blossom but never bear fruit” (p. 108). Church and Conger (2018) maintain that the real challenge for talent is not becoming a high potential, but staying one. This requests continuous learning during the entire career, including

continuous feedback. Charan (2017) proposes a self-test for high-potential leaders, and focuses on your general mind-set, stating: "The central premise of a talent-driven company is that talent drives strategy, as opposed to strategy being dictated to talent. The wrong talent inevitably produces the wrong strategy and fails to deliver" (Charan, Barton and Carey, 2018). Achieving your full potential is key, to get everyone to improve until their full potential., and this with regular business reviews, trainings, and outlooks for the next 2-3 years, checking if new technologies have come up and new knowledges are needed to confront them (p. 156, 157). "The best way to inform yourself about another person is through close observation" (Conaty and Charan, 2010), and: "Talent mastery requires the same rigor and consistency to build your skills – in this case, identifying, developing, and retaining the talent you need for a competitive edge. It requires dedicated processes and resources. Above all, it requires total commitment" (p. 302). Kaye and Jordan-Evans have found the solution to how to getting good people to stay: "Love 'em or lose 'em (Kay and Jordan-Evans, 2014), means: you have to love your people, otherwise you will lose them. Hoffman, Casnocha and Yeh (2014) suggest 'Building trust through honest conversations' (p. 26), and use the alumni network for network intelligence (p. 151). Reid Hoffman is cofounder and chairman of LinkedIn.

It is worth citing Hofstede himself: "... Luxembourg has a high score on uncertainty avoidance which means that as a nation they are quite reluctant to test unknown territories. Security is a key word in Luxembourg: there is not one activity which is not dependent on some sort of security control from authorities; from banker's money to safety exits in a restaurant. It makes life in Luxembourg very safe, but some would argue a bit boring. New ideas, new methods, new management techniques must first be proven to work in other countries in order to be accepted in Luxembourg. Historically more "farmers" than "traders", the inhabitants kept that good old "common sense" made of cautiousness which has proven to be profitable for a country who managed not to be at war since the Napoleonic time! (<http://geert-hofstede.com/luxemburg.html>).

The following proposition is offered: Luxembourg's responsible talent management will depend on its linguistic and cultural particularities.

### **Table 3 Talent Management**

|   |
|---|
| What is Talent Management for you?  |
| 1. Lewis and Heckman (2006, p. 139): HR activities: candidate selection, recruiting, development, training, career planning, succession planning. |
| 2. Talent pool and progression of employees   |
| 3. Talent in general, speaking about 'war for talent' and 'highly competent performers', the  |

talent inherent in each person

4. Making talent management strategic (Minbaeva and Collings, 2013).
5. Impacted by: Social media, computer technology, cloud computing and globalisation (Guo, Rammal and Dowling, 2016) and
6. Innovation and change (Vrontis et al., 2018)

## METHODOLOGY

For the purpose of this research, the current literature was reviewed for interviews in the field of responsible leadership and talent management. This means using secondary data, trusting what other people said to third people and how they wrote it down. In order to validate the findings from this secondary data, the author collected primary data while performing 14 own interviews. Respondents were asked the following questions: A) What is your company doing in the field of 'responsible leadership' and 'talent management' in Luxembourg? B) What do you do to find the talent you are looking for? C) Once found, what do you do to keep the people? D) Please give some examples! For confidentiality reasons, interviews were not recorded or filmed. In-depth notes were taken during the interviews. After the interviews, the respondents were presented with a summary of the interview and asked for their consent. Interviews were in Luxembourgish, French, German, Italian or Spanish and translated into English.

## RESULTS FROM THE INTERVIEWS

The results are shown in this paragraph. Table 2 summarizes the respondents' demographics.

**Table 4 Respondents' demographics (N=40)**

| Respondents' profile | Classification | Number of respondents |
|----------------------|----------------|-----------------------|
| Gender               | Male           | 7                     |
|                      | Female         | 7                     |
|                      | Total          | 14                    |
| Age                  | 0-24           | 0                     |
|                      | 25-34          | 1                     |
|                      | 35-49          | 5                     |

|                 |  |    |
|-----------------|--|----|
|                 | Over 50  | 8  |
| Industry sector | Banking and Finance                                | 4  |
|                 | Industry   | 4  |
|                 | Research   | 2  |
|                 | Human Resources                                    | 2  |
|                 | Public Sector/State                                | 2  |
| Education level | A-level and professional education, undergraduates | 4  |
|                 | Masters and Doctorates                             | 10 |
| Total           |  | 14 |

In total, the 14 respondents come from 5 different countries: Luxembourg, France, Germany, Italy, Belgium and speak 6 different languages, two holding double nationality: German + Luxembourgish. Native languages are: Luxembourgish (6), German (3), French (3), Italian (2). 1 respondent speaks six languages, 4 speak 5 languages, 5 speak 4 languages, 3 speak 3 languages, 2 speak 2 languages.

Research results are best shown through the citations from the 2018 study. Therefore the responses from the different respondents are reprinted hereafter.

HR manager at a state institution: "Talent search and Talent management, Talent-keeping at my company goes over Motivation and Work Climate. We are a public institution. We cannot just give some more money / a higher salary to attract / to keep people.

It all happens with Motivation and Work Climate: we have an excellent work climate. We undertake activities together. We undertake activities outside work together, like Sports Pour Tous: lunch: Midi-Gym together: Tuesdays and Thursdays in Badanstalt, or also we came to Limpertsberg, but now that the Badanstalt is re-opened, we prefer to go to Badanstalt, it is just across the street from our office. Sports pour tous ist heilig, c'est sacré, it is sacred."

Employee at a Research Institution: "We urgently need new talents. Luxembourg does not have enough right talents. There are many people, but they do not fit the job openings. There are a lot of open job positions, because the people with the right talents do not come to Luxembourg for work. But what to do to attract them? We perform a lot of questionnaires, researches, but still, we do not know exactly what people motivates not to come. It seems to be more attractive to work in a big city like Paris, culturally."

Another employee at another Research Institution: "It is difficult to recruit talent for Luxembourg. The only way to attract people to coming to work in Luxembourg is money. Still, it is not always the only motivator. What we lack in Luxembourg are other motivators, attractive reasons for people to come, like for example we lack a university of worldwide renown, or famous research centres. Besides

money, there is nothing interesting in Luxembourg that would attract talent. In plus, the bad weather. In addition, Luxembourgers are very slow. They are so much into their procedures, you would like to shake them to wake them up to get things done faster. They stick so much to their old habits, it is impossible to make them change or make them move. Everything takes too much time here, procedures are followed by the letter; they are long lasting, and discourage new entrants. We attended a conference yesterday in Amsterdam for the first time to represent Luxembourg. The representatives from the other countries told us, that it is high time that Luxembourg participates as well."

The director of an industry: "The first priority at long-term is the capacity to develop and attract the necessary talents, the qualified profiles in all sectors of the economy. Or these necessary talents have to innovate or they will envision serious regulatory constraints. The government needs to provide access to resources to ensure more innovation."

"Of course Luxembourgers prefer to hire Luxembourgers, this is because of the language. People all over the world prefer to reduce their efforts, therefore they prefer to speak their mother tongue. This is valid for the French working in Luxembourg who prefer to hire French speakers, and/or Germans hiring German speakers. The language is the identifier."

A headhunter said: "When looking, for example, for an accountant in another country than Luxembourg, you are looking for somebody with the technical skills of an accountant. The right person for the job. When looking in Luxembourg for an accountant, you add the language skills to the technical skills. This is where it gets tricky. Because technically fit accountants speaking Luxembourgish, French, English, German and and and, are rare. Often they have the technical skills, but don't speak all of the languages. Or they speak all of the languages but don't have the technical skills. The few 'cherries on the cake' are known all over the place (Luxembourg), and are highly paid, to make them stay in their position. Therefore, it is quasi impossible to make such a highly paid, technically fit accountant who speaks L, F, E, G move to another company. Money being one of the motivators, but not the only motivator, is not always the best argument for a job change."

"We have to clarify what we are looking at. In Luxembourg, Luxembourg Nationals are a minority, those who are Luxembourgers by birth representing less than 30% of the population. Adding 189.000 cross-border workers to the 71% foreigners living in Luxembourg. The real Luxembourg National has his origins in farming. Nearly all Luxembourg Nationals work for the State as civil servants. There are hardly any Luxembourg Nationals working in the private sector, where Foreigners and Cross-Borderers work. This is a dilemma, as Geert Hofstede excluded civil servants from his cultural study; here in Luxembourg, you will hardly find any Luxembourg Nationals in the private sector. What counts in Luxembourg is the social class to which you are born, not whether you are foreigner or not."

"I know somebody who is a true Luxembourger, who is a manager. He has a company. He says that he has done his business for 30 years now and that he does his business the way he does and he will continue this way and he will not change. The young people he hires all leave, because they want change, innovation. But he doesn't want to change anything or innovate. He wants to stick with his procedures and his business connections that he has since the beginning."

"Luxembourg lacks talent. There are not enough qualified people. There is no 'Knowledge Community', as the University only started 15 years ago. There is a top 1% that rules the country, inaccessible for the common citizen. Luxembourg seems to be an open society, but it is not. The language is the key issue. Either you speak it, then you are in the in-group, or you don't speak it, then you are out. The foreigners work hard, they bring the talent. In my opinion, the typical Luxembourger is dying, not only his language, but also the species."

Besides, I do not work with Luxembourgers. I am founder and manager of my own business. Not one single Luxembourger wants to work in our business, or in other businesses. It's too hard work. They all want to be employed by the State, which means earning a lot of money for little work. Most Luxembourgers study at a University, they come back with their diplomas and claim a highly paid position, instead of starting in a private business and learning from a boss, like me. They do not want to do that. We employ only French and Belgians. They work well, they are happy with the good work, to learn, to be treated well, and to contribute to a small private business.

"The real estate situation is discouraging new comers. Housing, lodging is horribly expensive in Luxembourg. Who can afford buying an apartment here? If you want to live in town, and to avoid the traffic jams, then you need to go small. Small apartment, yes, my children even agreed on sharing a single room, just to stay living in town."

"The traffic situation is chaotic! There are road works everywhere. The entire town is in road works, traffic jams are so long, you take 1 hour or 2 hours to cross town, just 1 km. This is getting on our nerves, there are too many road works all over."

"The tri-lingual public education system is a challenge for all new entrants into the country. Luxembourgish, German and then French as instruction language in this order in school is demanding for children and their parents, mathematics in Luxembourgish, German and then in French is a real challenge, if you thought mathematics on its own was a challenge, then try it in these 3 languages, and add English and/or Portuguese to it!"

One respondent put it this way: "The Cross-Borderer's biggest issue is the traffic. All day they reflect on how to get back home best, and how to come to work best the next morning. They use either the train, with its uncertainty or the bus, again with its uncertainty, or the car, with the traffic jam for 100% certain! On the way, they are on their iPhones, writing emails, writing reports, telephoning,

working, writing presentations on their iPads, or they sleep, or they do their make-up, or talk to their neighbour. From my experience, cross-border workers always arrive late in the mornings, every morning, without a word of excuse they arrive at 10 a.m., by the time they start working it is 10:30, because they are so exhausted from the traffic. In the afternoon, around 3p.m. they get nervous and want to leave before the traffic starts. Others decide to stay later to leave after the traffic. But employees with children have to leave early. They will skip lunch and work through their lunch break.”

## IMPLICATIONS

This article contributes to the discussion on talent management in the field of leadership theory. It is the combination of research about talent management and responsible leadership in Luxembourg. The method used is a mix of literature review and qualitative study, where 14 semi-structured interviews were conducted mainly in summer/autumn 2018 to confirm the findings from the literature. The Luxembourgish language is used as an identifier, guarantee of success. Despite numerous activities and incentives in Human Resource Management to attract talent to Luxembourg, many a candidate/talent hesitates if taking/staying in a job position. Typical peculiarities, such as the three-lingual education system, sticking to old traditions, avoiding change, the weather conditions and the smallness of the place prevent many a person to coming for a job, and/or to remain in a job. On the other hand, Luxembourg often is and has been forerunner in promoting peace and tolerance in the European Union and the world, in start-ups creation (Mercier, 2018), in satellite technology and many more innovative projects. The lack of talent, especially the lack of talent speaking Luxembourgish, is one of the biggest issues to be solved in the future. Luxembourgish, French and/or German language courses are inherent component of expatriates’ relocation package.

**Table 5 The link between talent management and responsible leadership**

|  |
|--|
| The link between talent management and responsible leadership  |
| <p>If you want to be a responsible leader in Luxembourg, you need to attract and keep/hold/retain - train the talent the country needs. You need to create motivators to make them come and stay, you need to install change. You need to solve the traffic issue. You need to solve the housing issue. You need to learn the languages: Luxembourgish, German, French, in plus to English and Portuguese. You need to get used to the smallness of the place, and to the weather conditions, if possible.</p> <p>- The need for new talents: We urgently need new talents. Luxembourg does not have enough right talents.</p> |

- The need for new motivators: We urgently need new motivators, attractive reasons for people to come to work to Luxembourg. Besides money, there is nothing interesting in Luxembourg that would attract talent.

- The need for change: We urgently need change. Luxembourgers are very slow. They stick so much to their old habits, it is impossible to make them change or make them move. Everything takes too much time here, procedures are followed by the letter; they are long lasting, and discourage new entrants.

The Luxembourgish language is the key issue. Either you speak it, then you are in the in-group, or you don't speak it, then you belong to the out-group.

Therefore:

The lack of talent, especially the lack of talent speaking Luxembourgish, is one of the biggest issues to be solved in the future. Luxembourgish, French and/or German language courses are inherent component of expatriates' relocation package.

Traffic:

The Cross-Borderer's – and not only - biggest issue is the traffic. ...cross-border workers always arrive late in the mornings, every morning.... They will skip lunch and work through their lunch break. At around 3p.m. in the afternoon they get nervous and want to leave before the traffic starts.

There are horrendous traffic jams, there are road works everywhere. The entire town is in traffic chaos.

Real estate / Housing:

The prizes for housing - real estate – buying and renting are very high.

The tri-lingual public education system:

Luxembourgish, then German and then French as instruction language in public school is a challenge for all: children and parents.

Climate/weather:

The weather is difficult to live. If you are not born in Luxembourg, it is difficult to stand the grey.

The smallness of the place:

Luxembourg is small in size and in people. Everybody knows everybody and everything.

After this summary of results from the interviews, the next paragraph will come up with conclusions, limitations and ideas for further research.

## CONCLUSIONS, LIMITATIONS AND FURTHER RESEARCH

The purpose of this study was to combine research about responsible leadership and talent management in Luxembourg by figuring out their specificities. The research was a mix of literature review and qualitative study, where 14 semi-structured interviews were conducted mainly in summer/autumn 2018 to confirm the findings from the literature. The research questions were: A) What is your company doing in the field of 'responsible leadership' and 'talent management' in Luxembourg? B) What do you do to find the talent you are looking for? C) Once found, what do you do to keep the people? D) Please give some examples! After the literature review and the review of local articles in the field of responsible leadership and talent management (secondary data), the author performed interviews (primary data) and reprinted parts of the interviews in the above paragraph. In conclusion, the author's proposition was confirmed: Luxembourg's responsible talent management depend on its linguistic and cultural particularities.

In conclusion, it can be said that the link between talent management and responsible leadership is the following: If you want to be a responsible leader in Luxembourg, you need to attract and keep/hold/retain - train the talent the country needs. You need to create motivators to make them come and stay, you need to install change. You need to solve the traffic issue. You need to solve the housing issue. You need to learn the languages: Luxembourgish, German, French, in plus to English and Portuguese. You need to get used to the smallness of the place, and to the weather conditions, if possible.

In the following the author would like to point out some of the peculiarities: First the Luxembourgish language: despite the multi-lingual and multi-cultural environment, the importance given to the Luxembourgish language cannot be stressed out enough. The Luxembourgish language is not only used as identifier (2013, 2014a, 2014b), but also as key success factor. Second: the Luxembourgish culture: again, despite their geographic position in the middle of Europe, squeezed between their big neighbours Germany France and Belgium, the Grand Duchy is a culture apart. During the Second World War, Germany annexed the small country, thinking it was German, but the Grand Duchy of Luxembourg is a culture apart. It is nor German, nor French, nor Belgian.

Luxembourgers with Luxembourg Nationality are characterised by Hofstede's cultural dimensions: low Power Distance Index (PDI=29), high Uncertainty Avoidance (UAI=95), low Individualism (IDV=34) - high Collectivism, medium Masculinity versus Femininity Index (MAS=54), high Long-Term Orientation (LTO=65) versus Short-Term Orientation, medium Indulgence versus Restraint Index (IVR=55), and low Monumentalism Index (MON=24), with a mix of at least three official languages: Luxembourgish, German and French.

Besides avoiding any change, and sticking to their ancient traditions, they would be forerunners in European integration and European Union formation, in innovation such as satellite technology, space mining, and start-up incubator (Mercier, 2018). However, the lack in talent, namely the lack in talent speaking the Luxembourgish language, will be in the focus to ensure a safe continuation in growth and advancement in innovation. Another peculiarity needs to be addressed: the fact that Luxembourg Nationals work mainly for the State, as Civil Servants, while foreigners usually work for the private sector. There are hardly any Luxembourgers working in the private sector. The private sector is for foreigners, both residents and cross-borderers.

Future research could look into Responsible leadership and talent management among 3 different groups: first Luxembourg nationals, second foreigners living in Luxembourg (expatriates coming from the entire world) and third cross-borderers from France, Germany and Belgium.

Research limitations are, first time limitation. This research was made with the objective of conference presentation and publication. Second personal limitation. The author being a single person cannot compete with huge groups of researches, such as the GLOBE (House et al, 2004) etc. Also, the author decided to concentrate on Geert Hofstede's research. This decision can be contested, however Hofstede was the initiator of cultural dimension research, despite later criticism of his methods.

This being a mix of literature review, secondary data and primary data from qualitative research, more sophisticated statistical methods could be used in the future with the objective to deepen the results.

Another particularity the author would like to point out is the fact, that the interviewed managers were exclusively 'responsible leaders' in their eyes. None of the interviewed leaders said: "I am an irresponsible leader' (Schinzel, 2017b).

Observation is the beginning of everything, and the author did exactly this: observe the current situation, supported by analysis of ideas on responsible leadership theory and talent management theory.

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# ROBOTIC PROCESS AUTOMATION AS AN EMERGING CAREER OPPORTUNITY: AN ANALYSIS OF REQUIRED QUALIFICATIONS AND SKILLS

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## ABSTRACT

The automation of work by means of disruptive technologies such as Artificial Intelligence (AI) and Robotic Process Automation (RPA) is currently intensely discussed in business practice and academia. Recent studies indicate that many tasks manually conducted by humans today will not in the future. In a similar vein, it is expected that new roles will emerge. The aim of this study is to analyze prospective employment opportunities in the context of RPA in order to foster our understanding of the pivotal qualifications, expertise and skills necessary to find an occupation in a completely changing world of work.

This study is based on an explorative, content analysis of 119 job advertisements related to RPA in Germany. The data was collected from major German online job platforms, qualitatively coded, and subsequently analyzed quantitatively.

The research indicates that there indeed are employment opportunities, especially in the consulting sector. The positions require different technological expertise such as specific programming languages and knowledge in statistics.

The results of this study provide guidance for organizations and individuals on reskilling requirements for future employment. As many of the positions require profound IT expertise, the generally accepted perspective that existing employees affected by automation can be retrained to work in the emerging positions has to be seen extremely critical.

This paper contributes to the body of knowledge by providing a novel perspective on the ongoing discussion of employment opportunities, and reskilling demands of the existing workforce in the context of recent technological developments and automation.

*Keywords: Robotic process automation, future of work, digital labor, qualification, skills, employment, job advertisements, Germany*

## INTRODUCTION

In their widely discussed study, Frey and Osborne (2013), indicate that almost 50 percent of total US jobs are facing the risk to get automated in the course of the following two decades. Although, the

impact of automation might be exaggerated, as indicated by Bonin *et al.* (2015), who transferred the results of Frey and Osborne (2013) to the contextual setting of Germany. They indicate that 12 percent of jobs in Germany are facing a high risk to get automated soon and see a marginal lower impact on the US labor market. Nevertheless, the results indeed show that recent technological developments will tremendously change the working world we currently know. Birchall and Giambona (2008), for instance, show how managers experience the use of information and communication technology tools and what the potential on innovation could be. Moreover, Morakanyane *et al.* (2017) indicate that especially operational processes are affected by digital transformation (see also Gimpel *et al.*, 2018) and Robotic Process Automation (RPA), as a key technology in this field, plays a major role in these developments (Osmundsen *et al.*, 2019; Deloitte, 2018; Roland Berger, 2018; Anagnoste, 2017). The automation of work with RPA, but also by means of complementing technologies such as Artificial Intelligence (AI) and Internet of the Things (IoT) is currently intensively discussed both in the academic community and the business world. At the same time, companies are investing heavily in the automation of their processes. According to Gartner (2018), estimated 680 million USD were spent on RPA software in 2018. Additionally, it can be assumed that consulting fees for the introduction of the tools and new processes substantially exceed the license fees so that the total investment in the technology is even more substantial. It is assumed that 85 percent of large organizations will use RPA by 2022 (Gartner, 2018) and the dissemination of RPA applications will continue to grow (Capgemini, 2016; Deloitte, 2018).

In the discussion of new automation technologies, both positive developments but also fears are intensively discussed (Cooper *et al.*, 2019; Madakam *et al.*, 2019; Mendling *et al.*, 2018; Moffitt *et al.*, 2018). The more negative voices emphasize negative employment effects, and focus on the idea that robots replace humans or that robots “take over.” On the positive side, opportunities for individuals, organizations, and society as a whole are mentioned, e.g., artificial intelligence liberating humans from tedious and meaningless administrative tasks. One of the uncontroversial points in the debate is certainly that today’s employees will require substantial training, and reskilling to meet the demands of new job profiles as existing jobs are vanishing. These reskilling requirements constitute a significant change and challenge in today’s business world.

While many previous studies (e.g. World Economic Forum, 2018; McKinsey Global Institute, 2017; Frey and Osborne, 2013) focus on the macro-economic level of analysis, this study focuses on the level of individual job opportunities and therefore has specific managerial implications. The study intends to underpin and illustrate the general discussion with real-life data on employment opportunities that emerge from one partial area of the latest automation trend.

The overall research objective of this study is to provide details on employment opportunities as well as specific skills and qualifications for future employment in the field of RPA. By doing so, the specific aims of the study are: First, to analyze whether new jobs are emerging from RPA (without quantifying the overall macro-economic employment effect). Second, to analyze what qualification and skills are required for the emerging job profiles. This study uses a content analytical research design to analyze job advertisements from different online job platforms.

This paper contributes to the body of knowledge by analyzing secondary empirical data providing a novel perspective on the ongoing discussion of employment opportunities, and reskilling demands of the existing workforce in the context of recent technological developments and automation.

The paper is structured as follows: In section 2, RPA is precisely discussed and defined. This is followed by a general discussion of the employment effects of automation, as well as, implications on qualification and skills. In section 3, the research methodology and design of this study is presented. Subsequently, in section 4, the results are presented. Finally, in section 5, the research results are summarized, discussed, and critically reflected against the literature.

## LITERATURE REVIEW

### *Robotic Process Automation*

The term RPA, as well as, accompanying graphical illustrations in publications by popular media and consulting firms nurture the notion that RPA involves humanoid robots or other hardware-based robotics technology. However, RPA is a software-based solution that performs tasks that have previously been conducted by humans (Willcocks *et al.*, 2015). Typically, RPA solutions are employed in processes where activities are performed across different user interfaces, and systems that are not integrated into the back-end, and thus, require manual steps. As Gartner (2018) describes, RPA tools “mimic the manual path a human worker would take to complete a task, using a combination of user interface interaction describer technologies.” Solutions can be employed both on individual desktops or operating on enterprise servers. In a similar vein, the IEEE defines RPA as “A preconfigured software instance that uses business rules and predefined activity choreography to complete the autonomous execution of a combination of processes, activities, transactions, and tasks in one or more unrelated software systems to deliver a result or service with human exception management” (IEEE, 2017). It is important to note that that automating business processes, which has been done for years and the implementation of RPA must not be understood as similar phenomena. RPA tends to be easily configured, is a software that is non-invasive, accessing systems like a human being would and is enterprise-safe, in terms of i.e. security (Lacity and Willcocks, 2016; Osmundsen *et al.*, 2019).

RPA has been classified as so-called “lightweight IT”. The term expresses the contrast to an increasing size and complexity of systems in the attempt to integrate different systems in heterogeneous landscapes (Penttinen *et al.*, 2018; Lacity and Willcocks, 2016). Provocatively, one could argue that RPA is the surrender in the battle against non-integrated system landscapes and a workaround replacing the human element in non-optimal processes instead of fixing the problem in the back-end.

Typical use cases for RPA are back offices of industries like financial services and utilities and telecommunications (Willcocks *et al.*, 2015; Gartner, 2018; Roland Berger, 2018). The reason is that the companies in these industries have many repetitive administrative processes, thus, employing RPA provides large cost saving potential. Processes which are standardized, routinized and have a high and predictable volume are considered to be most appropriate for the application of RPA (Osmundsen *et al.*, 2019), hence the identification of suitable processes is pivotal for a successful application (Leshob *et al.*, 2018). Van der Aalst *et al.* (2018) also state that the main motivation of companies employing RPA is achieving a high Return on Investment (RoI) and indeed studies indicate positive effects on economic performance indicators (Osmundsen *et al.*, 2019, Deloitte, 2018).

Besides RPA, there are more advanced forms of automation that are “cognitive,” or “intelligent” (Anagnoste, 2018; Willcocks *et al.*, 2015). A large potential might also lie in the combination of RPA with machine learning solutions to create “cognitive RPA solutions” (Reddy, 2018).

#### *Employment Effects of Automation*

Automation in general – including RPA and other forms of automation (Lacity and Willcocks, 2016) – have a large impact on jobs as work activities that humans perform are substituted by machines and algorithms. The possible negative effects associated with this development are raising public concern today and have done so in the past, e.g., in the industrial revolution of the early 19th-century when textile artisans were replaced by machines (Autor 2015). However, one has to differentiate between short- and long-term effects as in the long run new jobs might be created based on new technological possibilities (Bhattacharya, 2017, McKinsey Global Institute, 2017). As Autor (2015) points out, history shows that the unemployment rate has not increased in the long run despite automation and technological progress. However, automation does create large shifts between sectors and job profiles as shown with historical data by McKinsey Global Institute (2017).

These general effects also apply to the current wave of automation driven by technologies such as AI and RPA. This time, not only assembly and factory workers will be affected by the technological possibilities, but also professionals working as bookkeeping and payroll clerks, data entry clerks, or accountants (World Economic Forum, 2018; Cooper *et al.*, 2019). This is consistent to prior research that suggests a polarization of jobs as middle-wage jobs are most affected by automation while both low-level jobs that require lots of manual work (e.g., haircuts) and high-level jobs that require lots of

education are less subject to automation (Autor 2015), while contrary to that Frey and Osborne (2013) also see a high potential for automation in areas of low-skilled work. On the positive side, new roles are emerging such as data analysts and scientists, AI and machine learning specialists, information technology (IT) services, and process automation specialists (World Economic Forum, 2018). Less obvious positive employment effects might be related to new business models developed based on new technologies (Herbert *et al.*, 2017). Overall, experts estimate that the effects of emerging roles will offset the lower demand for other roles (World Economic Forum, 2018; Gartner, 2017).

#### *Implications on Qualification and Skills*

While on the macro-economic level the overall employment effect of automation might be neglectable, the situation on the level of individual employees is more complex as the new roles require a different set of skills and dedicated training. As both the McKinsey Global Institute (2017) and the World Economic Forum (2018) state, a large proportion of the global workforce will need to transition to new occupations, and thus, require significant reskilling. These estimates are accompanied by normative recommendations that individuals should get involved in educational activities, businesses should support the existing employees in their upskilling requirements, and governments should provide environments that enable the transition (World Economic Forum, 2018).

The relationship between new IT developments and the demand for new jobs and skills has been previously described and analyzed in the context of IT employees (Niederman *et al.*, 2016). When an organization adopts a new technology, there are two options: hire new employees or retrain existing employees. In other waves of introducing new technologies, these options might both have been feasible as the reskilling demands only were relevant for IT personnel that already have a general understanding of IT. However, for RPA, the situation is different: retraining a bookkeeping clerk that has no technical background at all to become a software developer is certainly more difficult, if possible at all. Therefore, in a first step, it is important to understand the specific new skills that are required to being able to evaluate the possibilities on a less abstract level.

The deployment of RPA in back-office functions might also further increase the occurrence of hybrid jobs that require expertise in both the technical and the business domain. As described by Niederman *et al.* (2016), there has already been the trend in the past that the use of technology that was previously restricted to the inner circle of IT has been moving to a larger number of users as the technology matures, which leads to more hybrid jobs.

#### *Research Gap and Need for Research*

The literature discussed above provide interesting contributions to knowledge: First of all, they explain the general relationship between automation and employment. Second, they provide insights on how

the current automation trend based on AI and RPA might influence employment. Third, they point out the general demand for new skills and reskilling requirement of the existing workforce.

However, previous research had a very broad scope in terms of industries and functions in organizations and do not focus on a particular area. Therefore, many of the findings are of a rather general nature and are not specific enough to provide guidance for organizations, managers and individuals on how they can adapt to the new reality. This paper intends to contribute to increase our understanding on these phenomena by an in-depth view on one specific area.

## DESIGN OF THE STUDY

### *Research Methodology*

This research is based on the collection of secondary empirical data, namely online job advertisements and has to be characterized as exploratory in its basic nature. Making use of secondary empirical data is common in business research (Blumberg *et al.*, 2011) and allows a standardized collection of data. The study applies a content analytical approach (Mayring, 2002), initially making use of a qualitative coding technique (Grbrich, 2013; Saldana, 2013) of job advertisements related to RPA in Germany and afterwards analyzing the findings by making use of simple quantitative statistics. The method is established and has been used in previous studies in the information systems discipline (Gallivan *et al.*, 2004; Todd *et al.*, 1995) as well as in other disciplines (i.e. Choi and Rasmussen, 2009). The major advantage of this method is the forward-looking nature as job advertisement reflect companies' predictions about what skills will be important in the future. Moreover, another advantage of the method over other methods such as interviews or surveys is not only the public availability of the data but also that data collection is not affected by socially desired answering biases, as potentially possible in interview studies (Kvale and Brinkmann, 2009). In order, to ensure credibility of this research the authors applied different mechanisms of reflexivity (Stokes, 2011; Stokes and Wall, 2014), such as procedures that both authors critically scrutinized, in a constant manner, the data collection and analysis approach by means of critical reflection and discussion.

Data was collected from the German website of the two online job platforms Stepstone (<http://www.stepstone.de>) and Indeed (<http://de.indeed.com>) on a specific date in September 2018. Both platforms are the most common job platforms in Germany. The decision was made to use several job platforms to reduce a selection bias if certain companies have a preference for a particular platform. Moreover, the sample size could be increased significantly by using more than one platform. On the other hand, when using several job platforms, redundant job ads have to be eliminated if they appear on both platforms. Based on a few exploratory search tests, it was decided that all postings that contain the exact term "Robotic Process Automation" are included in the first step. To reduce manual effort to

download and analyze the ads, we have used a web scraping technique based on a Python script and stored the data in a spreadsheet. In a second step, the records that met the following exclusion criteria were deleted: job advertisements for internships or student positions, job advertisements that were not written in German and redundant job advertisements. Moreover, search results that contained the term “Robotic Process Automation” in the advertisement but did not have a focus on RPA-related tasks were excluded manually, e.g., non-related positions in RPA software firms.

To derive the codes and categories for the content analysis, a combination of a deductive and inductive approach was used. On the one hand, certain codes were derived from theoretical considerations. For example, the most popular RPA software tools in the market were included as codes, as well as, common academic disciplines as study backgrounds. On the other hand, codes were collected inductively from the data to reflect the specific requirements formulated in the job advertisements.

Subsequently, the data records were coded in a semi-automated process with the help of spreadsheet functionalities. To assure proper data quality, the coding results were critically reviewed manually, and the search terms were adapted in a cyclical process. After the coding was completed, the data was analyzed with the help of a statistical software based on R, mostly descriptively, but also using non-parametric tests of association (Chi-squared).

#### *Sample Descriptives*

The final sample consists of 119 job advertisements. The sample contains advertisements from different industries with the majority from consulting and auditing firms (54.6 percent). Although it is acknowledged that the sample might not be representative in general, the over-proportional demand for RPA professional in the consulting sector seems plausible as many companies are implementing RPA-based processes with the help of external consultancies. Also, the large demand in the IT sector that might be related to the introduction of the tools is plausible. The strong representation of the financial services sector is consistent with the results of prior research (Willcocks *et al.*, 2015) in terms of relevant industries for deployment of RPA.

| Industries                 | Counts | % of Total |
|----------------------------|--------|------------|
| Consulting & auditing      | 65     | 54.6 %     |
| Information technology     | 13     | 10.9 %     |
| Financial services         | 13     | 10.9 %     |
| Transportation & logistics | 8      | 6.7 %      |
| Automotive                 | 4      | 3.4 %      |
| Diversified                | 4      | 3.4 %      |
| Energy                     | 3      | 2.5 %      |
| Chemicals                  | 2      | 1.7 %      |
| Retail                     | 2      | 1.7 %      |

|               |   |       |
|---------------|---|-------|
| Electronics   | 2 | 1.7 % |
| Machinery     | 1 | 0.8 % |
| Not specified | 2 | 1.7 % |

Table 1. *Industries in sample*

## RESULTS AND DISCUSSION

### *Qualification*

Stokes and Oiry (2012) highlight the importance and facets of competencies in the context of the workplace. As mentioned above, RPA involves both business and IT-related activities. Therefore, it is not surprising that companies are looking for graduates from different academic disciplines as shown in the table below. Interestingly, it can also be observed that most job advertisements mention several suitable disciplines, i.e., for the companies, it seems to be more important that the candidates have a degree at all than having it in a particular discipline. The most popular qualification, however, is an IT-related background which is mentioned in 71.4 percent of the job advertisements, followed by a business or economic degree (63.9 percent). Some of the companies (7.6 percent) do not specify the educational background and focus on required skills instead. Few companies are also satisfied with vocational training in Informatics instead of academic studies (not in table).

| Disciplines  | Counts | % of Total |
|--|--------|------------|
| Computer Sciences, Informatics, Business Informatics | 85     | 71.4 %     |
| Business, Economics                                  | 76     | 63.9 %     |
| Mathematics, Natural Sciences                        | 38     | 31.9 %     |
| Engineering, Industrial Engineering                  | 32     | 26.9 %     |
| Other  | 6      | 5.0 %      |
| Not specified  | 9      | 7.6 %      |

Table 2. *Academic disciplines*

### *Programming Skills*

The data shows that many positions require programming skills. 52 companies (43.7 percent) request programming skills –general programming abilities or a specific programming language (31.9 percent). Table 2 shows specific programming languages that are mentioned in job advertisements. The most popular languages are Visual Basic, C/C++, JavaScript, and Python.

| Languages    | Counts | % of Total |
|--------------|--------|------------|
| Visual Basic | 17     | 14.3 %     |
| C/C++        | 14     | 11.8 %     |

|               |    |        |
|---------------|----|--------|
| JavaScript    | 14 | 11.8 % |
| Python        | 14 | 11.8 % |
| Java          | 10 | 8.4 %  |
| HTML, CSS     | 9  | 7.6 %  |
| R             | 7  | 5.9 %  |
| Not specified | 81 | 68.1 % |

Table 3. *Programming languages**Software Knowledge*

Apart from programming expertise, many companies (65.6 percent) require expertise in particular software, including RPA software, and other software.

In terms of RPA software, 43 companies request skills in one or more particular tools. In Table 3, the particular tools mentioned in the advertisements are listed.

It can be seen in the figures that many of the 43 companies in the sample mention more than one tool. Although in many companies, only one type of RPA software might be in operation, the results are plausible due to the high number of consulting companies in the sample. The reason is that consulting companies do not employ the candidates for internal purposes, but for work at different clients where different RPA tools might be used. Indeed, a chi-squared test shows that among the companies that mention specific RPA tools, the consulting firms are more likely to mention several tools than the non-consulting companies ( $p < 0.05$ ).

| RPA tools           | Counts | % of Total |
|---------------------|--------|------------|
| Blue Prism          | 34     | 28.6 %     |
| UiPath              | 30     | 25.2 %     |
| Automation Anywhere | 22     | 18.5 %     |
| Other               | 9      | 7.6 %      |
| Not specified       | 76     | 63.9 %     |

Table 4. *RPA software*

Concerning other software, 26.9 percent of the companies in the sample require their candidates to have skills in one or more Microsoft Office software, in SAP ERP (19.3 percent), or other particular software (10.1 percent) such as Tableau, PowerBI, or Qlik.

*Other IT-related Skills*

Additionally, the companies in the sample require other IT-related skills as shown in the table below. 28 companies (23.5 percent) have required expertise in artificial intelligence, machine learning, and related concepts. Second, database know-how was mentioned by approximately 20 percent of the

companies which includes both general experiences with databases and specific database types and languages such as SQL, Hadoop or MongoDB. Moreover, many companies look for candidates with experience in the Microsoft .NET technology, as well as, expertise in (Advanced) Analytics.

| Other IT skills                                 | Counts | % of Total |
|---|--------|------------|
| Artificial intelligence, machine learning       | 28     | 23.5 %     |
| Databases (General expertise, SQL, Hadoop etc.) | 24     | 20.2 %     |
| Microsoft .NET                                  | 19     | 16.0 %     |
| Analytics, Data Mining, Text Mining             | 10     | 8.4 %      |

Table 5. *Other IT skills*

#### *Business and Sectoral Expertise*

Besides the technical IT skills, many companies are also looking for employees with expertise in the business field to deal with RPA. The most important aspect is expertise in business process management as mentioned by 50 companies (42.0 percent). Moreover, functional expertise in finance & accounting is important which might be an indication that most RPA projects are currently conducted in the finance & accounting function. But also, other functional areas such as purchasing or human resources are mentioned by some companies (13.4 percent).

| Business and sectoral expertise  | Counts | % of Total |
|--|--------|------------|
| Expertise in business process management                               | 50     | 42.0 %     |
| Functional expertise in finance & accounting                           | 36     | 30.3 %     |
| Functional expertise in other areas (e.g. purchasing, human resources) | 16     | 13.4 %     |
| Industry expertise in financial services (e.g. banking, insurance)     | 34     | 28.6 %     |
| Industry expertise in other industries (e.g. automotive, retail)       | 10     | 8.4 %      |

Table 6. *Business and sectoral expertise*

Also, some companies also prefer candidates with competencies related to a certain industry. Above all, specialized knowledge concerning the financial services sector is sought after by 34 companies. While 6 out of 13 companies from the financial services sector would like their candidates to have sectoral know-how, also 22 out of 65 consulting companies and 4 out of 9 IT companies have this preference. Overall, this is a strong indication that many RPA projects are currently conducted in the banking and insurance sector.

#### *Other Requirements and Competencies*

While many companies do not explicitly demand professional experience, one-third of the position requires several years of experience whereas candidates need leadership experience or competencies

for only 14 positions (11.8 percent). Expertise in traditional or agile project management methods are beneficial for 28 of the positions (23.5 percent). As also indicated by Lois *et al.* (2020), especially in the digital era, employees' skills and training can be seen as significant for the successful implementation and use of tools, while others indicate what the results of non-effective training and development approaches could be (e.g. Rowland *et al.*, 2017).

The companies also have requirements toward their candidates in terms of soft skills: more than half of the position requires strong communication skills (56.3 percent), as well as, team-orientation and capability to work in a team (53.8 percent).

Finally, mobility and willingness to travel are necessary for almost half of the positions (49.6 percent). A chi-squared test reveals that this effect is again due to a high number of consulting positions in the sample ( $p < 0.001$ ).

## CONCLUSION

### *Research synthesis*

Many of this study's findings are in line with the existing literature. For example, prior studies (e.g., World Economic Forum, 2018, McKinsey Global Institute, 2017) mention finance and accounting as an area highly affected by automation. Also, the financial services industry was mentioned by Willcocks *et al.* (2015) as an example for RPA implementation. This study confirms that financial jobs are indeed most affected by RPA. Moreover, the finding by Autor (2015) that middle-wage jobs are most affected by automation, seems to be confirmed by this study. Also, the general tenor that automation does not only destroy jobs, but at the same time creates new job opportunities, can be confirmed, which seems to be typical for every technological or structural change of the economic system.

Hence, it can be summarized that this study confirms the general direction of prior studies but provides more detailed results on specific skills and qualifications for future employment in the field of RPA, which indeed is the key contribution of this research. Moreover, this research provides a number of implications, which will be discussed in the following.

### *Implications for business practice and professionals*

Overall, it has to be emphasized that this research provides a novel and unique view on the required qualifications and expertise in the field of RPA, which provides important guidance for both business organizations and professionals in this area. It is undoubtedly, that the application of RPA will intensively grow in the future (Deloitte, 2018; Lacity and Willcocks, 2016). The study also provides an in-depth view on the German RPA labor market. Data indicate towards a number of important implications, which can be briefly summarized as follows.

First of all, it can be noted that RPA constitutes a new career opportunity for individual professionals. Although quantification of employment effects is not possible based on this study, it can certainly be said that RPA does provide an emerging career opportunity as there are many published job advertisements in this area. With 55 percent of job advertisements in the sample, the consulting sector seems to offer the most job opportunities in RPA. This is not surprising because consulting firms are often driving the adoption of new technologies in different industries. However, in terms of overall employment effects, this raises the question of whether the jobs will be permanent or only be limited for the period of the main wave of the introduction of RPA.

An implication for both individuals and organizations is that a strong IT background is required to succeed in the RPA field. Although many of the job advertisements are not very specific when it comes to particular skills requirements, it becomes apparent that a background in or at least an affinity for IT is required.

Furthermore, the study implies that finance and accounting are considerably affected. Based on both the industries in the sample and the skills mentioned in the job advertisement, it can be said that financial services sector and the finance and accounting function seem to be most affected by the changes. This does not only mean that skills in this area are relevant for prospective RPA experts, but also that people working in these areas today might be most affected by automation and reskilling requirements. This is in line with prior research that, in general, sees a huge impact of digital transformation on the finance function (Langmann, 2019; Greulich and Riepolt, 2018; Nuhn *et al.*, 2018). RPA and other automation technologies imply a major reskilling demand for the existing workforce in many organizations. However, considering the novel results of this research, the general idea and argument in many discussions, that individual employees that are affected by automation can be retrained to a position in which they supervise and operate “robots” has to be seen extremely critical. It is acknowledged that a certain percentage of the existing workforce might engage in tasks such as exception handling in an RPA ecosystem. However, most of the jobs identified in this study are in the consulting sector and thus related to the introduction of the software robot. A person that has been working as an accounting clerk for most of their lifetime will hardly be able to be trained into programming C#, for example. On the other hand, reskilling does not necessarily have to mean that the people still work in the same function (e.g. accounting) afterwards. A more realistic possibility might be to retrain an accounting clerk to work in other administrative areas, for instance in sales or HR (if these functions are not affected by automation in a similar intensity).

#### *Implications for academic teaching*

The results of this study emphasize the interdisciplinary nature of RPA, spanning for example accounting and IT. This will also lead to a further hybridization of employees' roles, that has already

been observed in the context of enterprise resource planning systems (Lois *et al.*, 2017). This interdisciplinarity should also be reflected in future curricula at universities, for example by integrating elements of the Information Systems discipline into business-related study programs and vice versa.

Continuous and lifelong learning, as well as openness towards changing circumstances will become even more important in the future. This will have a tremendous impact on educational systems and provide new opportunities for universities to offer for example part-time postgraduate programs as well as non-degree programs for employee development.

#### *Limitations of the study and potential for further research*

As every research, also this research has its limitations. First of all, this study is limited to RPA as one particular area of automation. That means that the findings might not be completely transferrable to the general discussion of the effects of automation but the authors believe that some arguments might be transferrable by means of logical reasoning. Second, the sample provides a snapshot on the labor market at a specific point in time in Germany, i.e., the results might not be generalizable beyond the temporal and geographical scope. Further sampling bias might arise from the selection of job platforms. Hence, comparative research approaches in different countries or regarding related technologies such as AI to corroborate the findings would further increase our understanding on the phenomena under study. The key findings discussed in this study can be used as research propositions or hypotheses for further studies.

Additionally, a longitudinal research design to identify further trends could be a promising avenue for further research, especially concerning the finding that the jobs seem to be largely consulting-driven, and the related question whether the career opportunities tend to be in their basic nature rather temporary or permanent. Additionally, alternative the collection of primary data, irrespective of underlying paradigms and concrete data collection methods, could considerably increase the knowledge in the field. It is beyond dispute that more research is needed, as the technological progress will continue to take place.

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## DETERMINANTS OF VIOLENCE IN INDIA: ROLE OF ECONOMIC AND ETHNIC FACTORS

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### ABSTRACT

The paper examines what type of individuals face violence in India. We specify and estimate a probit model where the probability that a person would face violence depends on several individual, regional and institutional variables. Empirical application of this model on the IHDS data set for the year 2011-12 reveals presence of important interaction between economic and ethnic factors. We find that violence against a “backward” social group increases when it becomes upwardly mobile. In case of forward castes, a reverse pattern is seen. Among ethnic measures, fractionalization turned out to be the most important one in our study. Polarization turned out to be statistically significant only when regions affected by violent separatist or political movements were treated with a dummy variable. Interestingly, as predicted by Esteban and Ray (2011), the Gini-coefficient based on consumption did not turn out to be significant. Among other variables, political activism, access to sanitation and number of adult males in a household were important determinants of susceptibility to violence. Ongoing feuds in the village and radical or separatist movements in a state also increased the susceptibility to violence.

*Keywords: Violence, Probit Model, Interaction, Gini Coefficient, Fractionalization, Polarization*

### INTRODUCTION AND SURVEY OF LITERATURE

In the literature of social science, the topic of violence has been studied extensively. A major focus of these studies is to find out whether and to what extent conflicts among groups could be explained in terms of economic factors or factors based on identities. One strand of this literature had associated violent crimes with economic measures like income inequality (Kelly, 2000; Fajnzylber et al, 2002; Thorbecke and Charumilind, 2002; Choe, 2008; Østby et al, 2009; Nepal et al, 2011; Chintakaran and Herzer, 2012; Enamorado et al, 2016). As the association was found to be weak, subsequent literature focused its attention on ethnic measures like fractionalization (Easterly and Levine, 1997). Seminal

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studies like Esteban and Ray (1994) highlighted that these measures may not capture social conflicts well and a new measure called polarization was developed by them. The second strand of the literature attempts to broaden the scope of this research and examines the determinants of civil war. Montalvo and Reynal-Querol (2005) proposed a simple measure of polarization based on ethnicity and applied this measure to cross-country data to model civil conflicts. Studies like Gasparini et al (2008), Lee and Shin (2011) and Motiram and Sarma (2014) established that polarization could be an important factor in explaining civil conflict in particular and macroeconomic environment in general. While civil war is the culmination of conflict between two groups, such conflicts typically begin through local crimes and small skirmishes targeted against specific groups. In this paper, we ask a basic question: which households become victims of violence? An answer to this question is needed from two important perspectives. The first one is of maintenance of law and order. In particular, if there is evidence that a particular region or particular identity group is disproportionately targeted, then there is need for serious introspection in the policymaking circles from the perspective of maintaining stability in the country. The second one is from macroeconomic perspective. If violence is not tackled quickly then it may destroy any conducive atmosphere needed for economic progress (Kirchhoff and Ibanez, 2001; Hughes, 2004; Bohlken and Sergenti, 2010) and may have cascading effect on performances of institutions (Greif and Iyugun, 2013).

This paper has two major objectives. The literature suggests that the relationship of violence with economic and ethnic factors could be complex and non-linear. In this context, the possibility of interaction among income and ethnicity cannot be ignored. Social scientists have also held the view that rather than poverty and deprivation, it is the competition for increasingly scarce resources such as jobs and housing during periods of increasing population growth that produced White-Black riots in the US (Olzak and Shanahan, 1996). Clearly, such competition can only take place when the deprived communities start showing visible economic improvement. One objective of this paper is to test this hypothesis.

The second objective of the paper is to test some predictions of theoretical models on conflict. The theoretical framework on conflict is available in Besley and Persson (2011) and Esteban and Ray (2011). Besley and Persson (2011) showed that peace, repression (one-sided violence) and civil war (two sided violence) were ordered states that depended on a latent variable which is shifted by shocks to the value of public goods, wages, aid and resource rents. The empirical link to conflict among groups over resources to inequality and polarization was also established firmly by Esteban and Ray (2011). In their seminal study, Esteban and ray (2011) showed that equilibrium level of conflict in an economy could be represented by a linear function of inequality, fractionalization and polarization and each could be an important covariate of conflict, the weights associated to them would depend on

the degree of publicness of the prize among groups. In particular, their model predicted that in a large economy, Gini coefficient will not explain violence well. Also, the higher the altruism, the more pertinent fractionalization and polarization be in explaining conflict, the higher the degree of publicness, the pertinent indices would be inequality and polarization.

The empirical part of this paper restricts its attention on India. In a large and multi-cultural country like India, different regions have different socioeconomic dynamics. Also, different identity based groups in India are at different levels of development.<sup>7</sup> These groups compete among themselves not only for public goods, but also for economic, political and social influence (Rohini Somanathan, 2006). In some cases, a few such groups also struggle for assimilation in the mainstream (Gail Omvedt, 1994). Historically, this competition had often led to conflict when an upwardly mobile group challenged the hegemony of the dominant group (Ambedkar, 1936). In the modern context, the unequal economic dividends from the Gulf boom that led to a conspicuous improvement in the level of living of Muslims relative to their Hindu neighbors were major sources of social tension in India (Mitra and Ray, 2014; Ray and Esteban, 2017). Another source of conflict had been the insurmountable barriers faced by some physically or culturally different groups to assimilation (Ramakrishnan and Balagopal, 1995). Urdal (2008) had examined the interaction among population, resources and violence in the Indian society. Motiram and Sarma (2014) had examined the linkage among inequality, polarization and growth. However, in the Indian context, no empirical analysis had so far been carried out on the linkages among inequality, fractionalization and polarization with violence using microeconomic data to validate the theoretical predictions of Esteban and Ray (2011).

In both Besley and Persson (2011) and Esteban and Ray (2011) violence or conflict is modelled like a “contest” game where the “contest” among groups is for public and private resources. Equilibrium level of “conflict” is then related to a set of determinants. Besley and Persson (2011) established the association of violence with shocks affecting wages and aids. In contrast, Esteban and Ray (2011) focused on the relative roles of economic and ethnological factors. A major theoretical result established by them was that the equilibrium level of per capita conflict can be approximately determined by a linear combination of Gini coefficient, fractionalization and polarization. The relative importance of these three measures in explaining conflict depends on three parameters in their model, viz., group size, group objectives (public versus private prizes) and group ability to circumvent the free-rider problem (“cohesion” or “identification”).

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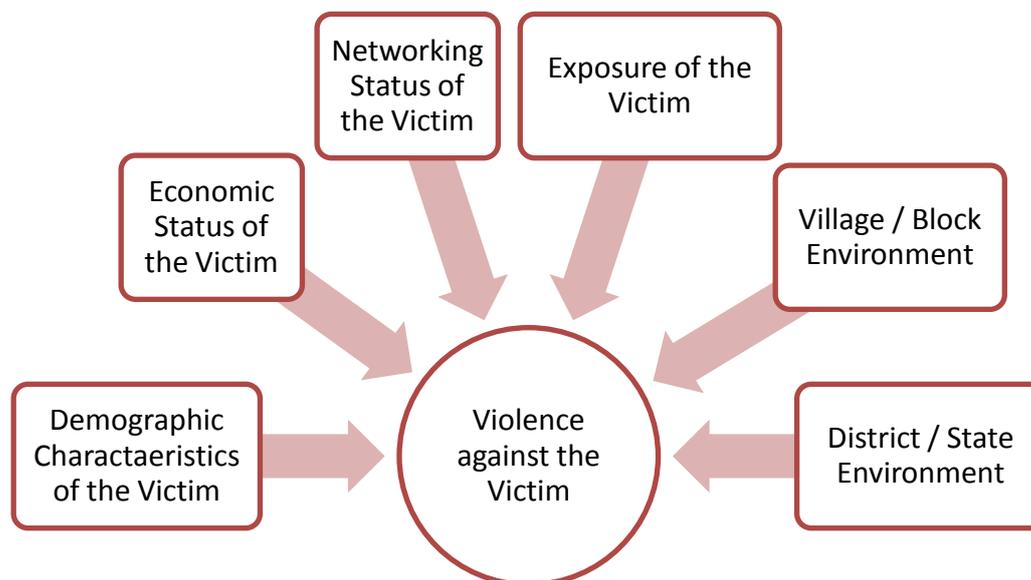
<sup>7</sup> Different levels of development of social groups in India have been documented in numerous surveys and research papers (REFERENCE OF A SURVEY) and had been officially acknowledged in official reports like Mandal Commission or Sachar Commission.

## ANALYTICAL FRAMEWORK AND MODEL SPECIFICATION

Our analytical framework in this paper is strongly influenced by the nature of the data collected in IHDS. Accordingly, our empirical strategy is guided by the theoretical framework of Esteban and ray (2011). We study the determinants of violence by specifying and estimating a probit model based on India Household Development Survey (IHDS) data. IHDS is a large-scale Pan-India sample survey that is available in the public domain. In IHDS, the variable that captures information on experience of violence by households is a binary variable. The probit model studies variations in a binary variable when the categories can be ordered. We specify a set of explanatory variables and examine whether these variables play similar or different roles in explaining violence faced by a household. The probit framework allows us to study the interactions among some of the explanatory variables. It also helps us to understand which economic or ethnic measures better explain violence against households.

Gini coefficient, fractionalization and polarization are three of these covariates along with a set of other variables that act like controls. In the absence of a clear theory on the determinants of these control variables, we specify some broad groups of variables that may affect whether a household will face violence or not. The schematic relationship is presented in Figure 1.

**Figure 1: Broad Groups of Variables Affecting Violence against a Household**



Variables reflecting identity of the victim will typically include caste and religion. These variables are immutable for a household. These variables are included because often violence may be targeted against particular identity based groups in a locality.

Economic status of the victim includes variables that reflect its purchasing power. Common sense suggests that richer the household is, less it will face violence.<sup>8</sup> Typical examples of such variables are per capita income or consumption of the household. We also include educational status as an

<sup>8</sup> A rich household may, however, be the target of robbery. We exclude this type of cases as exceptional ones.

important determinant of violence, the hypothesis being, more educated an individual is, the less would be the probability of violence against that individual.

We also hypothesize that a politically active household will face more violence. Political activism typically increases exposure of a household (compared to non-active ones) due to more interaction with other households. Hence, variables reflecting political participation and leadership role are important determinants of violence. Violence against any member of a household may take place because *ceteris paribus*, attackers get more opportunity due to certain features or exposures of the household. For example, absence of sufficiently large number of adult males in a household may make it vulnerable. Similarly, if women are forced to answer nature's call outside home due to absence of toilet in the household, they may become more vulnerable to sexual predators.

Institutional environment is also a crucial determinant of violence. The institutional environment could be at the village/block level or at district or state level. For example, at the local level, a history of feud in the village may lead to more violence in the village. Similarly, whether households of different identities are mixed or clearly demarcated may be a determinant of violence in the village. We also include a measure of crime against women at the district level as a proxy for the general law and order situation. This variable is expected to play an important role due to effectively reveal the local institutional environment. We have computed the crime rates from the NCRB database.

So far as district-level is concerned, the broad measure of level of living in a region like per-capita income (or, consumption) may also be a crucial determinant of violence. Besides level of living, we have also included a few district-level measures that capture economic inequality and ethnic tension in a district. Economic inequality in our study is measured by the Gini coefficient based on consumption of a household. Ethnic dimensions are measured by Fractionalization and Polarization as past studies demonstrate their crucial role in explaining violence in a region.<sup>9</sup> Our hypothesis is that as inequality, polarization and fractionalization increases, the probability of violence faced by a household also increases. We would also try and determine the relative effectiveness of these three measures. We have computed these variables at the district level because at the village level, there may not be sufficient number of observations to measure them correctly; in contrast, states in India are often so big and heterogeneous that the nature of dominance of specific social groups at the local level may be lost due to aggregation.

In this context, we note that the spatial context in the relationship between inequality and violence had largely been neglected so far. So far as economic and ethnic measures are concerned, there is no clear theory in the literature about the appropriate scale at which one should measure inequality and ethnicity in a population. In case of inequality, there is a long debate to what extent spatial scale of

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<sup>9</sup> In this study, we follow the Montalvo and Reynal-Querol (2005) measure of polarization. Measure of fractionalization used in this study is the standard one.

inequality measures affect the relationship between inequality and violence. Whitworth (2013) summarizes the literature, but finds contrasting evidences across two areas, supporting the notion that local inequality measures are important determinants of social outcomes, but the larger picture of socio-political context also matters. To the best knowledge of authors, the spatial context of measures like fractionalization or polarization has not been studied yet.

As prolonged political violence due to continuous terrorist attacks or separatist movements may distort the estimates, in one of the empirical models specified in this paper, we have grouped some states that experienced prolonged political violence by three dummy variables, viz., North East dummy (7 sister states), Jammu & Kashmir dummy and Naxal dummy (combining Jharkhand, undivided Andhra Pradesh, Chattisgarh, Orissa, Bihar). The idea is to separate out states suffering from perpetual political violence for many years, with the genesis of the violence in these states being radical separatist or political movements, from other states where violence could be emanating due to other socio-economic factors.

It may be noted that many variables included in our study are immutable (e.g., variables reflecting identity like caste or religion) and cannot be changed by policy. However, many other variables like presence of toilet in a household can be influenced by policymaking. Similarly, a strong relationship between level of living and violence would reveal that policies that lead to increase in income of the population would also reduce violence. Education is one more variable in our study that can be influenced by policy.

We specified and estimated a probit model where the probability that a person would face violence depended on several individual, regional and institutional variables. We have estimated six probit models that differ in terms of explanatory variables. A Base Model without interaction terms and without variables *Gini*, *Fractionalization* and *Polarization*. Second model includes the Base Model with interaction between *Poor* and *Social Groups* but without variables *Gini*, *Fractionalization* and *Polarization*. The third model includes the Base Model with interaction between *Poor* and *Social Groups* along with *Gini*, but without *Fractionalization* and *Polarization*. Fourth model includes the Base Model with interaction between *Poor* and *Social Groups* along with *Gini* and *Fractionalization* but without *Polarization*. Fifth model includes the Base Model with interaction between *Poor* and *Social Groups* and along with *Gini*, *Fractionalization* and *Polarization*. The sixth model includes the Base Model with interaction between *Poor* and *Social Groups*, *Gini*, *Fractionalization* and *Polarization*. In this model, we also include the effect of political violence through three dummies, viz., *North East*, *Jammu & Kashmir* and *Naxal*.

## EMPIRICAL RESULTS AND POLICY RECOMMENDATIONS

In this paper, we examined what type of individuals faced violence in India. Empirical application of the six probit models specified above, on the IHDS data set for the year 2011-12 revealed presence of important interaction between economic and ethnic factors. Table 1 below provides the estimated coefficients with their standard errors along with summary statistics on goodness of fit.

**Table 1: Estimated Probit Models on Violence Faced by Individuals**

| Prob(Y=1)                                 | Dependent Variable Y: During the last twelve months, did anyone attack or threaten you or someone in your household? (1: "Yes", 0: "No") |                          |                          |                          |                          |                          |
|---|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Variables                                 | Model 1  | Model 2                  | Model 3                  | Model 4                  | Model 5                  | Model 6                  |
| Demographic Characteristics of the Victim |  |                          |                          |                          |                          |                          |
| Age (Numerical)                           | -0.0015128<br>(-3.84***)   | -0.0014989<br>(-3.8***)  | -0.0014965<br>(-3.79***) | -0.0014638<br>(-3.71***) | -0.0014653<br>(-3.71***) | -0.0014557<br>(-3.66***) |
| Gender (Dummy)                            | -0.0185962<br>(-1.16)  | -0.018399<br>(-1.15)     | -0.0184169<br>(-1.15)    | -0.0185152<br>(-1.16)    | -0.0184983<br>(-1.16)    | -0.0194815<br>(-1.21)    |
| Years of Schooling (Non-Negative Integer) | -0.0084512<br>(-4.61***)   | -0.0082715<br>(-4.5***)  | -0.0082853<br>(-4.51***) | -0.0083322<br>(-4.53***) | -0.0083334<br>(-4.53***) | -0.0084105<br>(-4.55***) |
| Social Group of the Victim                |  |                          |                          |                          |                          |                          |
| Other Forward Castes (Dummy)              | 0.0241283<br>(0.55)  | 0.0743257<br>(1.52)      | 0.076433<br>(1.56)       | 0.0769584<br>(1.57)      | 0.0769077<br>(1.57)      | 0.1553055<br>(3.08***)   |
| OBC (Dummy)                               | -0.0437242<br>(-1.05)  | 0.0122799<br>(0.26)      | 0.0134817<br>(0.29)      | 0.0293385<br>(0.63)      | 0.0289985<br>(0.62)      | 0.1029521<br>(2.11**)    |
| Dalit (Dummy)                             | 0.0830225<br>(1.96**)  | 0.1942611<br>(4.09***)   | 0.1958548<br>(4.12***)   | 0.204725<br>(4.31***)    | 0.2038998<br>(4.29***)   | 0.2761004<br>(5.62***)   |
| Adivasi (Dummy)                           | -0.2239932<br>(-4.35***)   | -0.2106667<br>(-3.33***) | -0.2108347<br>(-3.33***) | -0.198247<br>(-3.13***)  | -0.1976246<br>(-3.12***) | -0.1389476<br>(-2.14**)  |
| Muslim (Dummy)                            | 0.148748<br>(3.38***)  | 0.2058774<br>(4.16***)   | 0.2087761<br>(4.22***)   | 0.2376953<br>(4.78***)   | 0.2398878<br>(4.81***)   | 0.2954407<br>(5.74***)   |
| Christian, Sikh, Jain (Dummy)             | -0.040449<br>(-0.56)   | -0.0278272<br>(-0.35)    | -0.0202779<br>(-0.26)    | -0.0282966<br>(-0.36)    | -0.0277764<br>(-0.35)    | 0.1201298<br>(1.48)      |
| Economic Status of the Household          |  |                          |                          |                          |                          |                          |
| Poor (Dummy)                              | -0.0402393<br>(-1.97**)  | 0.3747753<br>(3.72***)   | 0.3739862<br>(3.71***)   | 0.3785424<br>(3.75***)   | 0.3789278<br>(3.75***)   | 0.4606037<br>(4.53***)   |
| Interaction Terms: Poor * Social Groups   |  |                          |                          |                          |                          |                          |
| Poor * Other Forward Castes (Dummy)       |  | -0.2935048<br>(-2.47**)  | -0.2942899<br>(-2.47***) | -0.3017908<br>(-2.53***) | -0.3018907<br>(-2.54**)  | -0.3955673<br>(-3.3***)  |
| Poor * OBC (Dummy)                        |  | -0.3713716<br>(-3.49***) | -0.3725581<br>(-3.5***)  | -0.3735619<br>(-3.5***)  | -0.3734289<br>(-3.5***)  | -0.4741742<br>(-4.41***) |

|  |                           |                           |                           |                           |                           |                           |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Poor * Dalit (Dummy)                         |                           | -0.6139068<br>(-5.71***)  | -0.6130755<br>(-5.7***)   | -0.6175057<br>(-5.74***)  | -0.6178361<br>(-5.74***)  | -0.7083728<br>(-6.54***)  |
| Poor * Adivasi (Dummy)                       |                           | -0.3041082<br>(-2.55**)   | -0.3035988<br>(-2.55***)  | -0.2963809<br>(-2.49***)  | -0.2969186<br>(-2.49**)   | -0.3983066<br>(-3.32***)  |
| Poor * Muslim (Dummy)                        |                           | -0.3826187<br>(-3.47***)  | -0.3835914<br>(-3.47***)  | -0.404654<br>(-3.66***)   | -0.4060604<br>(-3.67***)  | -0.4840318<br>(-4.34***)  |
| Poor * Christian, Sikh, Jain (Dummy)         |                           | 0.1046054<br>(0.5)        | 0.1031068<br>(0.49)       | 0.0903907<br>(0.43)       | 0.0905392<br>(0.43)       | -0.0115622<br>(-0.05)     |
| Networking Status of the Household           |                           |                           |                           |                           |                           |                           |
| Member of Political Party (Dummy)            | 0.1137517<br>(2.83***)    | 0.1149771<br>(2.86***)    | 0.1175936<br>(2.92***)    | 0.1182269<br>(2.93***)    | 0.117696<br>(2.92***)     | 0.1302008<br>(3.2***)     |
| Member of Local Body (Dummy)                 | 0.0691637<br>(1.86*)      | 0.0709289<br>(1.9*)       | 0.0700451<br>(1.88*)      | 0.0693413<br>(1.86*)      | 0.0692871<br>(1.86*)      | 0.0679756<br>(1.81*)      |
| Exposure of the Victim                       |                           |                           |                           |                           |                           |                           |
| Toilet in Household (Dummy)                  | -0.2744451<br>(-14.65***) | -0.2716595<br>(-14.51***) | -0.2695947<br>(-14.36***) | -0.2624245<br>(-13.95***) | -0.2623083<br>(-13.94***) | -0.2368934<br>(-12.38***) |
| Number of Adult Males (Non-Negative Integer) | -0.02027<br>(-2.46**)     | -0.0226955<br>(-2.74***)  | -0.022929<br>(-2.77***)   | -0.0230937<br>(-2.78***)  | -0.0228336<br>(-2.74***)  | -0.0221472<br>(-2.65***)  |
| General Environment of the Village           |                           |                           |                           |                           |                           |                           |
| Separate Mohalla (Dummy)                     | -0.0073377<br>(-0.27)     | -0.005654<br>(-0.21)      | -0.0034086<br>(-0.12)     | 0.0070311<br>(0.26)       | 0.0064381<br>(0.24)       | 0.028628<br>(1.05)        |
| Distance of Police Station (Numerical)       | -0.0011554<br>(-0.78)     | -0.0010097<br>(-0.68)     | -0.0010409<br>(-0.7)      | -0.0013013<br>(-0.87)     | -0.0013166<br>(-0.88)     | -0.000547<br>(-0.36)      |
| Conflict in Village (Dummy)                  | 0.104488<br>(4.8***)      | 0.1067234<br>(4.89***)    | 0.1076396<br>(4.93***)    | 0.1064736<br>(4.87***)    | 0.1063427<br>(4.86***)    | 0.0978485<br>(4.42***)    |
| Urban (Dummy)                                | -0.0626178<br>(-3.06***)  | -0.0652174<br>(-3.18***)  | -0.0625814<br>(-3.04***)  | -0.069736<br>(-3.37***)   | -0.0695055<br>(-3.36***)  | -0.0588644<br>(-2.79***)  |
| General Environment of the District          |                           |                           |                           |                           |                           |                           |
| Per-Capita District Consumption (Numerical)  | -0.00000204<br>(-2.02**)  | -0.00000191<br>(-1.88*)   | -0.00000245<br>(-2.26**)  | -0.00000244<br>(-2.25**)  | -0.00000237<br>(-2.16**)  | -0.00000785<br>(-6.29***) |
| Crime against Women (Numerical)              | 0.0000553<br>(2.57***)    | 0.0000521<br>(2.42**)     | 0.0000547<br>(2.53***)    | 0.0000448<br>(2.08**)     | 0.0000452<br>(2.1**)      | 0.0000928<br>(4.14***)    |
| Gini Coefficient (Numerical)                 |                           |                           | 0.1988799<br>(1.42)       | 0.0351683<br>(0.24)       | 0.0405386<br>(0.28)       | 0.2618003<br>(1.75*)      |
| Fractionalization (Numerical)                |                           |                           |                           | 0.4177711<br>(5.67***)    | 0.4119336<br>(5.48***)    | 0.7006152<br>(8.95***)    |
| Polarization (Numerical)                     |                           |                           |                           |                           | 0.1589421<br>(0.44)       | 1.688491<br>(4.47***)     |
| North East (Dummy)                           |                           |                           |                           |                           |                           | 0.1257909<br>(2.26**)     |
| Jammu & Kashmir (Dummy)                      |                           |                           |                           |                           |                           | 0.7843329<br>(12.9***)    |

|                        |          |          |          |          |          |                         |
|------------------------|----------|----------|----------|----------|----------|-------------------------|
| Naxal (Dummy)          |          |          |          |          |          | 0.1916832<br>(10.04***) |
| No of Observations     | 1,59,966 | 1,59,966 | 1,59,966 | 1,59,966 | 1,59,966 | 1,59,966                |
| AIC                    | 26361.03 | 26313.62 | 26313.61 | 26282.06 | 26283.87 | 26033.91                |
| BIC                    | 26570.66 | 26583.15 | 26593.13 | 26571.56 | 26583.35 | 26363.34                |
| Pseudo-R-Square        | 0.0227   | 0.0249   | 0.0250   | 0.0262   | 0.0262   | 0.0358                  |
| P-Value for Chi-Square | 0.0000   | 0.0000   | 0.0000   | 0.0000   | 0.0000   | 0.0000                  |

We found that *Dalits* and *Muslims* were more susceptible to violence, but *Adivasis* were not. Interestingly, the probability of facing violence interacted with the level of living. Our analysis revealed that poor Brahmin households faced more violence compared to other social groups. Our results, therefore, suggests that violence against a “backward” social group increases when it becomes upwardly mobile. In case of forward castes, a reverse pattern is seen. The poor of these castes are prone to face more violence from other communities.

Interestingly, we found that among ethnic measures, fractionalization turned out to be the most important one in the Indian context. Polarization, in contrast to fractionalization, was not statistically significant in the probit model that included data of all states. However, when regions affected by violent separatist or political movements in India (e.g., Jammu & Kashmir, North East and states severely affected by Naxal movement) were treated in one of our probit models with a dummy variable, polarization turned out to be a significant factor. It may be noted that these regions in India typically had high violence with low ethnic polarization at the local level. Hence, these states acted like outliers in our model. Once they were separately treated, polarization also turned out to be a significant factor in explaining violence. Interestingly, as predicted by Esteban and Ray (2011) in their theoretical model on determinants of conflict, we found that in a large country like India, the Gini coefficient based on consumption was not an important determinant of violence even if the measure is computed at the level of a district.

Following Esteban and Ray (2011), we may conclude that the important relationship between fractionalization and violence in India suggests that a major source of conflict in India could be due to sharing of private goods. For example, a conspicuously biased distribution of jobs and sops among communities could be the main bone of contention that culminates in violence. Concerns over public good could also explain violence once the outliers are excluded from our model. Some of the bones of contention here could be roads, common water resources, street lighting and security. If specific groups are systematically deprived of these facilities or are not allowed to enjoy them even when they are available for others, movements of members of the excluded communities to have them may result in violence. Among other factors that explain susceptibility to violence, political activism, access to sanitation and presence of large number of adult males in the household are important ones. Political

activism increases the probability of attack due to more exposure whereas access to sanitation in home reduces such exposure in case of women. Presence of large number of adult males in a household could act like a deterrent against violence.

Finally, the general political milieu in a state were important determinants of violence in our model. Naturally, violence was observed to be more in the regions of India afflicted by terrorism or by violent separatist movements. For example, individuals living in J&K, North-East and Naxal affected states in India experienced more violence compared to residents of other states. It may be noted that a violent political movement in a state could be drawn on ethno-religious lines. However, ethnic polarization measures based on district will be low in these states. The literature does not clearly indicate what should be the appropriate spatial scale of these measures. In the absence of a clear theory, we may interpret at least two of the three significant dummies in Model 7 (e.g., North East and Jammu & Kashmir) in terms of polarization measured at a broader level.

Our results suggest that apart from direct policy interventions like better policing, a few indirect strategies could play effective role in reducing violence in India. For example, access to sanitation in home is expected to reduce a lot of sexual predatory attacks against young women. Importantly, as increased average per-capita income has a big role in reducing violence in a region, policies that enhance growth would be a good bet to reduce violence in that region. Similarly, overall increase in educational level could also reduce violence in a region. In contrast, inequality reducing general Pigou-Dalton type transfers redistributions from rich to poor may have only a limited impact of violence. In the Indian context, apparently the ethnical variables are more important determinants of violence than economic inequality.

We also postulate that complexities of interactions of these identity based variables with level of living would render “one size fits all” type of policies irrelevant in the Indian context. Local ethnic factors, upward and downward economic mobility of specific groups, existing village-level or broader feuds would shape the course of violence for years to come.

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## AESTHETICS, CULTURE AND THE INSTAGRAM: PERCEPTIONS AND USERS' TRENDS

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### ABSTRACT

The 21st century is defined by the profound and structural changes in the key systems of communication. The emergence of social media has placed visual content at the forefront of marketing and communication in unprecedented ways. The debate around visual culture has been of central interest to the ongoing analysis in academia, and it is still very much a dynamic and complicated matter. In this new environment, Instagram holds a prominent role. The current study examines the relationship between age and the perceptions of Greeks towards the influence of Instagram on their aesthetics, as well as gender effects on the use of the platform's trends. Statistical analysis is utilized to examine the hypothesized effects. Theoretical contributions and implications for those in charge of planning and realizing digital marketing and communications programs are discussed.

*Keywords: Visual Culture, Aesthetics, Instagram, Instagram Filters, Gender, Age, Instagram Trends, Marketing Communication*

### INTRODUCTION

The distinguishing mark of the 21st century has been the emergence of the age of image and information. This century's defining characteristics have been the profound and structural changes we have experienced in the key systems of communication (Papathanassopoulos, 2000). The emergence of social media has placed visual content at the forefront of marketing and communication praxis in unprecedented ways (Stavrianea and Kavoura, 2015). As discussed by Papathanassopoulos (2000), the ways in which the media have been transformed correspond directly to the wider changes our society is undergoing. In recent years, the debate around visual culture has been of central interest to the ongoing analysis in academia, and it is still very much a dynamic and complicated matter. The term 'visual culture' corresponds to what can be seen - the 'visible' (Becker, 2017). It correlates with circumstances and states within the cultural and social context of our society. Our cultural and media terrain is shaped by and, in turn, influences contemporary visual culture. Images, as well as social media, play a pivotal role in this process.

Instagram - the online network which was established in 2010 - is centrally positioned within this emerging virtual landscape. Here the focus is on images and visual content. As Hochman and Schwartz (2012) explain, the individuals who use the platform post images and audiovisual content on their Instagram profiles. This, in turn, affects contemporary societies in different ways and has an undeniable effect on today's visual cultures (Cara, 2019). One dimension of visual culture is particularly affected, notably aesthetics - a term that corresponds to how images are observed and interpreted (Jamieson, 2007). It appears that Instagram established its following and prevalence from its very early stages and continues to expand steadily to the present day ((Pavlicek and Syrovatkova, 2020; Statista, 2019). Instagram's popularity has rendered the platform particularly interesting to most marketing and communications executives (Pavlicek and Syrovatkova, 2020; Business of App, 2019; Jaakonmäki et al., 2017). Instagram's effect on contemporary social networks, on the expression of the individual and the self-esteem of the user, has been explored by previous research (Manikonda et al., 2015; Cornet et al., 2017). Additional work is nevertheless required to evaluate Instagram's effect on the development of visual culture for users - an area of study that remains under-researched (Howells and Negreiros, 2019). Certain aspects of the profile characteristics of Instagram users, particularly age and gender, have been widely researched (Kim and Kim, 2019; Shane-Simpson et al., 2018; Thelwall and Vis, 2017). Though, more in-depth study is required regarding the relationships between age, gender, and Instagram trends and filters used.

Therefore, the following research topics need to be addressed:

RQ1: Does age influence the beliefs of Greek users regarding the effect of Instagram on their aesthetics?

RQ2: What are the reasons for which Greeks use Instagram filters?

RQ3: Does gender influence the use of Instagram trends?

This research examines the effect of age on the beliefs of Greek Instagram users on the aesthetic aspect of visual culture. Furthermore, it explores the dependence of the visual tools of Instagram, such as the use of trends, with gender.

This study is presented with the following structure in mind: the initial parts engage with the presentation of the theoretical background and the prior work done on the field study. Following that, the methods and findings are discussed. The paper concludes by considering the significance of the findings as well as by suggesting and examining routes for further research.

## LITERATURE REVIEW

As explained by Mitchell (1994), extensive research from different perspectives has been carried out on the subject of visual cultures over the past decades. This research field has been at the center of inquiry from varying scientific disciplines. Nevertheless, it continues to be a highly nuanced field of study, one

which presents the researcher with a high level of sophistication and a subject around which there is still extensive ongoing debate. In addition to pointing out the necessity for more detailed and analytical work to be done around the field of visual cultures, Becker (2017:151) highlighted the complex nature of what is understood under the concept of 'visual culture': on the one hand, the term implies the study of "the things that are seen", but what makes it particularly thought-provoking is the fact that, by definition, *visuality* is thus imbued with the attributes of social interaction. Social and cultural requirements render the "visible" a necessity, and the conditions are created for particular phenomena or events to be made available so that other individuals can "see" them (Becker, 2017).

The idea of visual culture is without a doubt far-reaching and complex, and as a result, researchers approach it from different angles, using a variety of interpretations regarding its meanings. It has been described as "any visual event that provides information, meaning, or pleasure when the viewer comes into contact with visual technology, which is designed to improve physical vision. The visual culture is interested in the sense of sight and its role in the production of meanings, the formation of aesthetic values of social stereotypes, and social relations" (Mirzoeff, 1998:3). Essentially, Mirzoeff's description introduces the dimension of social interaction and communication to the concept of visual culture and defines this as the connection between the visual and knowledge.

The idea of visual literacy is inextricably linked to that of visual culture and is of pivotal significance in these image-dominated times. The concept of the "grammar" of a visual text has been used in the past (Kness and Van Leeuwen, 2001), claiming that the visual medium constitutes a highly evolved way of communicating with each other (Yenawine, 2016).

According to Sifaki (2015), what is of paramount importance when considering images is not merely how they appear to others, but rather how they decipher them. Visual texts present ambiguity and intricacy, which arises from the fact that images may be perceived in different ways and may indeed present certain difficulties in their interpretation. Not all individuals and communities have the same outlook and standpoint in this multifaceted and multicultural world. Discussing from this frame of reference, Goldman (1975:107) emphasizes the concept of a "world-perspective," a concept that can be understood as "a mixture of ideas, ambitions, and emotions." Furthermore, he stresses that each community of given people has a particular "world-perspective" shared solely by the members of the group (Goldman, 1975). A society should not be defined by any particular cultural text unless it originates from the particular social group that developed it. Therefore, it represents a shared and commonly-understood world-perspective (Howells and Negreiros, 2019).

Our modern cultures and societies have, in recent years, been defined by the fundamental role which the social media have played in defining and shaping our cultures. At present, images play a central role in influencing visual culture and marketing communication, and all this is played out in the

context of our very heavily populated social media. In this context, Instagram represents a freely available virtual social networking site through which users have the opportunity to share visual material as well as videos and post them on the Internet through the use of the various networking platforms (notably: Facebook, Flickr, Twitter, and Tumblr). This type of social media defines visual culture as images become framed around the platform's aesthetic component - how the images are framed, the filters used, and a variety of trends that become prominent among users (Leaver et al., 2020).

A broader approach of aesthetics refers to the sentiments and judgments that an individual has when coming in contact with arts (Blacburn, 2005; Buschgens et al., 2018). Aesthetics is a part of visual culture regarding how a person perceives images (Jamieson, 2007). Therefore, aesthetics is associated with each person's cultural influences, personal inclinations, and subconscious (Jamieson, 2007). Marketing literature suggests that branding draws upon different processes, including visual aesthetics (Wu et al., 2013; Buschgens et al., 2018). Mesquita (2010) argues that the user's aesthetics are affected by the ways in which the visual content is positioned. The framing around the images also plays a role in this context. Moreover, the person's aesthetics may also be influenced by the unique features offered by Instagram - features that improve and add to the way in which the image is communicated. In each case, the user profile is organized in specific ways by placing images next to one another, thus establishing links, similarities, and narratives that suggest a connection. Where the surrounding elements of the image to be changed, this would in turn modify the significance of the message being conveyed. As Manovich suggests (2016), the elements which accompany the image can detract from or enhance the effect it will have.

With regard to the ways in which Instagram can 'frame' images, the platform uses three types of template models. The process of trimming the frame in which a photograph was originally placed, and in essence, creates a different image, a "meta-image." Likewise, a photograph's aesthetics are inevitably affected by the mass production of images which then appear in precisely the same frame type as all the other images (Manovich, 2016; Bakhshi et al., 2014).

A wide range of filters is also provided by Instagram. These give users the option to edit and alter the images that they choose to post on the platform. A filter is an automated image editing setting. This means that applying a filter offers automatic adjustment of brightness, saturation, contrast and color editing of an image (AlShehri et al., 2020). The variety of filters is large and is constantly updated. The systematic use of certain filters can significantly affect the aesthetics of a culture. Hochman and Schwartz (2012) compared a large sample of images uploaded to Instagram from two cities: New York and Tokyo. The results showed that the vast majority of images uploaded from New York had cold colors and the ones from Tokyo warm. All filters are made available to every single user, and a number

of them are used extensively (Jaakonmäki, 2017). In addition, it is known that images showing faces are the ones that, as a rule, have a tendency to attract the largest number of comments and likes (Bakhshi et al., 2014). The key reasons for using filters have been researched by Bakhshi et al. (2015), and the findings confirm that primary among them is the idea that once filters are added, the image's aesthetics will be enhanced. The color and the lighting of the picture can have an impact on the kind of atmosphere that the image conveys. According to Bakhshi et al. (2015), the vintage/retro look of a monochrome black and white or sepia image is assumed by many users to create an attractive aesthetic. Additionally, changing a photograph's colors and the automatic alteration of warm tones to cold and back again, as well as the possibility of creating completely different, more powerful, images, are further motivations for using filters. In addition, the use of filters deepens how the user connects with the image. It is clear that any edited visual material appears to receive overall more comments and likes (Bakhshi et al., 2015).

Ultimately, there are clear patterns that we notice emerging through Instagram, and these are welcomed and supported by a significant number of people and communities. Instagram trends affect gastronomy (Anggadwita et al., 2020), product placement strategies, or body type standards (Pavlicek and Syrovatkova, 2020). Sometimes these trends are just filters, that adjust on an image or a video and affect its aesthetics; such a trend is the Fine-line sketch that constitutes one of the most prominent trends of Instagram during 2020 (Schneider Media, 2020; Canning, 2019).

Research carried out in recent years has established the forces at play in considering Instagram to be a type of marketplace for discussing and connecting through textual and visual media (Lusch and Watts, 2018; Schops et al., 2020). Valentini et al. (2018) have also considered the impact visual messages have on people using Instagram and the effect on purchase intention that visual communications may have. Further research has demonstrated that Instagram influencers who are older participate in the creation of cultural meaning through their image and personality. It is believed by Buschgens et al. (2019) that branding within visual aesthetics facilitates the creation of communities that can be described as transnational.

Therefore, studies regarding the influence of Instagram on visual culture are very limited, and to our knowledge, no research examining gender preferences on the use of Instagram trends was found. Based on the previous research questions as well as the beforementioned literature review, this study aims to address the abovementioned research gaps and provide more in-depth understanding on the formation of the aesthetic dimension of visual culture, through the use of Instagram, and examine the possible relationship with age, and also, to advance our knowledge on the trends of Instagram in relation to gender preferences. Specifically, the current study aims:

- 1) To examine age effects on the perceptions of Greek users regarding the influence of Instagram on their aesthetics.
- 2) Explore the reasons for using Instagram filters and
- 3) Examine whether gender affects the utilization of Instagram trends.

## METHODOLOGY

A questionnaire that measured Instagram use and perceptions of users towards its influence on aesthetics and visual culture were developed especially for this study based on prior research (Jamieson, 2007; Bakhshi et al. 2015, Manovich, 2016, Cara, 2019) and in-depth interviews. Due to time and economic limitations, the sampling procedure employed a combination of non-probability sampling methods. More specifically, convenience sampling was used -through a Facebook account providing an invitation to acquaintances to participate in the study-, along with snowball sampling and criteria according to Stavrianea et al. (2020) procedure. In order to participate in the research, the following criteria had to be met: First, of all, the individual had to be an Instagram user and second, not be a digital marketing professional. A total of 265 valid questionnaires were gathered from December 1 to December 28, 2019. The study constitutes a part of a larger research, and as far as questions referring to the influence of Instagram on users' aesthetics, ratings were on a five-point Likert type scale. Data analysis included descriptive statistics and chi-square test. For the chi-square, all tests were set at  $\alpha=0.05$ .

## RESULTS

### *Sample Demographics*

Of the 265 respondents, 46% were male, and 54% were females. Ninety-three participants (35%) belonged in the 18-24 age group, 102 respondents (38.5%) belonged in the 25-34 years old group, and 70 respondents (26.4%) were over 35 years old. Regarding the sample's educational level, 9.1% of the respondents had secondary education, 27.9% were undergraduate students, 39.6% were university graduates, and 23.4% had postgraduate education.

### *The influence of Instagram on aesthetics, the reasons to use filters and follow trends*

24.2% of the respondents believed that Instagram influences their aesthetics greatly and very much 26.8% of the participants believed that Instagram has affected their aesthetics in a moderate way; 24.2% believes that the platform has influenced their aesthetics a little and 24.8% that it has not affected their aesthetics at all. In an attempt to further examine one visual tool of Instagram, filters, results showed that 28.3% of the sample does not use the filters in the visual material that they publish, 26% do not use

them at all, 22.6% make neutral use of the filters. In contrast, 16.6% use them a lot. Concerning RQ2,-the use of filters in the visual material published on Instagram by the Greek users was explored. Initially, the three main reasons came to the surface as to why Greeks use filters in the content they post on Instagram. Users believe that filters make the images look more atmospheric (46%), the quality of the image is improved (30.9%), and photos look more professional. (19.6%). Of the research participants, 16.2% use filters because this tool is available, and 3% because it is fashionable. On the contrary, amongst non-users of filters, responses show that they avoid using them because they make images look unnatural (30.9%), alter image quality (24.2%), have a very intense effect (18.9%), and everybody is using them (15.8%).

In addition, the use by Greeks of the most popular Instagram trends was examined in this research (fine line sketch; puzzle layout; color blocking; #nonfilter photos; monochrome layout; retro layout). Results showed that the most popular trends among users are #nonfilter photos (20%), followed by retro (16.6%); monochrome layout (9.4%); color blocking (4.5%); fine line sketch (4.3%); puzzle layout (2%), while 61% answered that they do not use any of the above trends.

#### *Hypotheses testing*

Based on RQ1, the following hypothesis was tested:

H1: There is no association between Instagram's influence on user's aesthetics and age ( $\alpha=0.05$ ).

The hypothesis is presented as follows:

H10= There are no statistically significant differences between participants' age and the-influence of Instagram on their aesthetics ( $\alpha=0.05$ ).

H11= There are statistically significant differences between participants' age and the influence of Instagram on their aesthetics ( $\alpha=0.05$ ).

Based on RQ3, the subsequent hypotheses were tested:

H2: There is no association between the use of fine line sketch Instagram trend and gender ( $\alpha=0.05$ ).

H3: There is no association between the use of puzzle layout Instagram trend and gender ( $\alpha=0.05$ ).

H4: There is no association between the use of color blocking Instagram trend and age ( $\alpha=0.05$ ).

H5: There is no association between the use of #nonfilter photos trend and age ( $\alpha=0.05$ ).

H6: There is no association between the use of monochrome layout trend and age ( $\alpha=0.05$ ).

H7: There is no association between the use of retro layout trend and age ( $\alpha=0.05$ ).

In order to examine the above hypotheses, the chi-square test statistical criterion was used after meeting the necessary requirements. Results showed that age affects the influence of Instagram on participants' aesthetics (RQ1), since  $\chi^2_1 = 19.524$  ( $p = 0.012$ ). Thus, the null hypothesis is rejected. Specifically, cross-tabulation tables showed that older users believe they are less influenced by Instagram on their aesthetics than the younger ones. As for RQ3 the results indicated that gender

affects solely the use of color blocking trend  $\chi^2=9.569$  ( $p= 0.02$ ) and the use of fine line sketch trend  $\chi^2=5.914$ ;  $p= 0.015$ ). Specifically, women seem to be more likely to use the Instagram color blocking trend, while men are more likely to use the fine line sketch trend.

## DISCUSSION – CONCLUSION

The current study provides significant insights that enable researchers to understand better the formation of an important aspect of visual culture, aesthetics. Specifically, the study explored the influence of Instagram on users' aesthetics and results showed that the participants in the study believe that the medium moderately influences aesthetics. It is important, though, that younger respondents believe that their aesthetics is affected more by Instagram, than individuals who belong in the older age groups. The results of the study also indicated the reasons for which Greek users utilize one of Instagram's tools, filters. The findings align with prior research (Bakhshi et al., 2015) that also supported the use of filters to create atmospheric images and improve quality and colors.

Finally, results showed that the use of some Instagram trends is related to gender and that the color blocking is mostly used by females, while males are more likely to use the fine line sketch trend.

The results of the study contribute greatly to those in charge of planning and implementing marketing and communications programs that integrate social media and Instagram. A more in-depth understanding of users' preferences on Instagram tools, and also, selections in regard to gender, enables marketers to design more effective messages and tactics and to better target and engage users, gaining in that way a competitive advantage.

Albeit its contribution, the study is not without limitations, which also constitutes directions for future research. The study used a non-probability sampling method, and also, the sample size is relatively small, since there were time and economic limitations. Future research could employ the use of random sampling and a larger sample in order to validate the results. The current study examined the perceptions and preferences of Greek Instagram users. Future research could examine the influence of Instagram on aesthetics for individuals with different cultural and geographical backgrounds. Nevertheless, despite the above limitations, the study offers valuable insights and practical implications on the impact of Instagram on modern aesthetics and users' preferences.

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## DISLOYALTY OF UPSCALE HOTELS IN SEOUL: E-OPINION MINING.

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### ABSTRACT

Upscale hotels' loyalty, intention to rebook, and willingness to recommend are important success indicators for hotel performance. The focus on the customers' complaints and negative experiences may provide useful insights to hotel managers on the way to deal with the latter. This paper aims to pinpoint the main variables explaining the e-reluctance to book over, and the e-direct and indirect disloyalty of customers. The methodology consists of qualitative research through content analysis applied to a corpus of 730 reviews sampled from a total of 23593 e-generated opinions, and 19 cases of upscale hotels in Seoul. The data was collected through booking.com, one of the leading hospitality and tourism platforms, and coded manually by the usage of QDA miner software. The work concludes that specific hotels' attributes, major vectors in terms of complaints, are salient factors to be considered for effective management of upscale hotels.

*Keywords: Disloyalty, online reviews, link analysis, upscale hotels, Seoul, complaints*

### INTRODUCTION

Several online platforms encompassing self-uploaded customers' reviews are nowadays available, and free to be accessed and to be used by hotel managers and academicians. A considerable literature has analyzed, in different fashions, the latter databases, many of which provided theoretical and managerial implications (Crompton, 2000; Lai 2019; Jani & Han, 2014). The major pathways of previous researches brought light to the following couples, 'review-valence/ hotel performance' (Li et al., 2017., Xie et al., 2014; Liu & Park, 2015; Zhou et al., 2014; Torres et al., 2015; Fang et al., 2016; Xie et al., 2017); 'opinion-mining/ future intentions' , and 'e-satisfaction/ e-loyalty' (Lai, 2019; Castro et al., 2007; Crompton, 2000; Murphy et al., 2000; Mody et al., 2019; Jani & Han, 2014.)

Little prior research of the previously reviewed papers has focused on the keys behind disloyalty and hotel performance (Hu et al., 2019., Dunsun & Cabir, 2016). However, the link between disloyalty and complaints about tourists' stays have not been exclusively considered previously by scholars. Therefore, this paper applies a content analysis on a corpus of data collected from one of the largest e-generated review platforms in hospitality and tourism 'booking.com,' of 19 high-end hotels in Seoul. It aims principally to analyze existing customers' online negative opinions of hotels' services in the

studied region, where more than 26 percent of the latter are 4 and 5-star hotels; and intends to give insights to hospitality managers on the crucial attributes explaining the main critical factors behind customers' negative futures intentions.

## LITERATURE REVIEW

Over the last decade, extensive literature focused on hotel customers' online reviews and opinions. Three main directions are identified. The first is on the importance of online reviews and their impacts on customers' trust and intention to book or to reuse, thus on the relationship and connections between the user-generated data and the potential future attitude. The second area of the literature is business-focused, which measures the effect of online reviews on hotel performance. The last area is centered on customer satisfaction and loyalty.

### *Tourists' e-WOM and opinion mining*

Online travel and tourism platforms, as well as social media, have become the main tools of e-WOM and uploading self-experiences' evaluations and comments. Several studies have used those collected online databases to research numerous issues directly linked to both the customers and the companies. The principal directions are resumed in the impact of online reviews' valence on customers booking intentions (Xie et al., 2014; Liu & Park, 2015; Zhou et al., 2014; Torres et al., 2015; Fang et al., 2016; Xie et al., 2017), the importance of e-generated opinions on hotel performance (Lui et al., 2018; Xie et al., 2014; Zhou et al., 2014) as well as the value of e-reviews for practitioners and managers (Chan et al, 2017; Mellinas et al, 2019; Lee et al, 2018; Banerjee et al, 2019; Pelsmacker et al, 2018; Zhao et al, 2019; Hu et al, 2017; Geetha et al, 2017; Xu et al, 2016).

Positive and negative online reviews have significant impacts on potential customers' future behaviors (Mauri & Minazzi, 2013), their trust on hotels (Sparks & Browning, 2011; Sparks et al., 2013) and on the popularity of the tourism product (Tran et al., 2019), as concluded in the study of Zhang et al. (2010). Ye et al. (2011) assert that online reviews impact considerably and positively on online booking of hotels, with a ratio of 50 percent. However, the latter study considered, uniquely, the Chinese market and product, the numerical finding is not to be generalized. In the same line of thoughts, it was argued that the most recently added negative online reviews are more likely to be the ones influencing customers' intention to buy (Sparks & Browning, 2011). Therefore, the dates in which the reviews have been published impact considerably on the customer decision-making process. Researchers' studying online customers' opinions have been aligned in terms of findings and conclusions as to factors behind consumers' intentions to book hotels online (Agag & El Masry, 2016; Chan et al., 2017; Tran et al., 2019; Ahmad and Sun, 2018), with review valence significantly impacting on future behaviors (Chan et al., 2017). Basically, trust on online customer feedback becomes stronger

in specific situations of demographic and preferences' similarities between the reviewers and the potential customers (Chan et al., 2017; Tran et al., 2019). 'Commitment,' 'trust,' and 'customer's attitude' are the significant moderator variables of the intentions to book hotels online, especially for customers with low-habit. (Agag & El Masry, 2016). The opposite is also correct (Ahmad & Sun, 2018), with fake identities positively influencing distrust of potential customers' booking behavior.

#### *Customer satisfaction and loyalty*

In addressing issues surrounding business value and hotel performance, the main challenge for managers is to understand customers' actual and future behaviors. Bosque et al. (2006), in conducting research into UK travel agencies, concluded that managers should understand satisfaction as an essential determinant of loyalty. They asserted that user satisfaction not only generates loyalty but also leads to positive word-of-mouth (WOM), thus communications encouraging potential users to request information. Managers, therefore, should seek to maximize the satisfaction of their customers. The latter statement is more applicable in, nowadays social-era, with the open access to self-uploaded e-WOM from the side of customers.

Bigné et al. (2005), compared two competing models of the impact of emotions on satisfaction, willingness to pay more, and loyalty. According to their findings, the strength of the direct effect of pleasure on loyalty is similar to that of satisfaction. It is an indication that the (physiological) experience of happiness by itself creates loyalty so that both the promise of pleasure and satisfaction need attention. It may thus be helpful to assist visitors in remembering the experience through after-sales services such as replies to online reviews, which continue the physiological pleasure to bolster the word-of-mouth. In the same line of thoughts, Lee and Park (2019) studied the relationship between customer delight, equity, and loyalty in high-end hotels (Lai & Hitchcock, 2017). Their study concluded that managers need to focus on enjoyment as it has a positive influence on customer commitment and fidelity.

Baker et al. (2000) argue, in their research on tourists' satisfaction and behavioral intentions, that high-performance quality and levels of satisfaction are perceived to result in increased loyalty and future reuse, greater acceptance of price increases and an enhanced reputation. Greater comfort will be generated where expectations coincide not only with perceptions but also with interests and attitudes. Similarly, according to Han and Hyun (2017), on their research applied to hotel-restaurants, the overall quality related to products and services play a decisive role in satisfaction.

In addition, expectations can be influenced by different elements such as past experiences, the customer's self-perceived competency (Xiang et al., 2015), the service of other providers from whom the customer can obtain service, what customers hear from other customers and external communication from the service provider (Xie et al., 2017; Lui et al., 2018). The latter includes a wide

variety of direct or indirect messages conveyed by service firms to customers from which managers' responses (Li et al., 2017; Sparks et al., 2016; Xie et al., 2017).

Scholars have adopted diverse approaches to address the problems and issues surrounding customer loyalty for the hotel industry. Lai (2019), studied using a structural equation, the principal factors which are playing roles in building customer loyalty. The results of the recently mentioned study show that hotel image, service quality, perceived value, customer satisfaction, hotel reputation, and customer commitment are the major factors behind customer loyalty. Similarly, Jani and Han (2014) argued that satisfaction had a significant impact on guests' loyalty and that extraversion, agreeableness, and neuroticism significantly affect satisfaction.

Besides, Mody et al. (2019) have focused their research on authentic experience and its impact on brand loyalty, in a study applied on hotels and Airbnb, through two directions 'the brand pathway' and 'the experience pathway.' Gao and Lai (2015) have studied transaction-specific and integrated-specific satisfaction's effects on resorts, and have stated that the integrated one has a substantial direct influence on customer loyalty. The results, although applied on a cumulative products' basis, is considered as part of this literature, as even in the case of luxurious hotels in urbanized destination the integrated satisfaction needs to be considered as a primary measure tool than the overall satisfaction itself.

Determining factors of satisfaction and dissatisfaction are proved to be different from one hotel type to another based on starring (Xu & Li, 2016). Indeed, Hu et al. (2019), concluded through their research on complaints and dissatisfaction, that service problems and pricing are the primary reasons for customers' complaints in upscale hotels.

Therefore, most of the literature reviewed is focused on satisfaction and e-satisfaction and the impact of the latter on the intention to rebook as well as on indirect loyalty. The lack previously mentioned, raises the main research question which seeks the critical variables associated with dissatisfaction as well as the link of the latter to disloyalty in upscale hotels in the urbanized city.

## **DATA COLLECTION AND ANALYSIS**

This study aims principally to pinpoint the main attributes linked to customer dissatisfaction and customer disloyalty in upscale hotels in Seoul, South Korea.

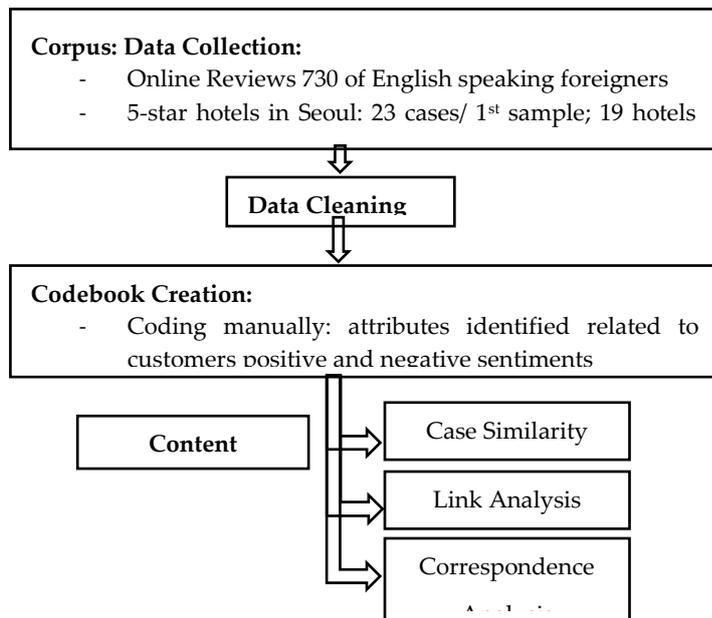


Figure 1. *Research Framework*

#### *Data acquisition and preparation*

The data was collected through booking.com, as it is one of the most significant and trusted platforms in the hospitality industry. The main selection criteria are:

- Star rating and geographical location: all the hotels studied are rated five-stars and situated in Seoul;
- Foreign English-speaking reviewers: During the cleaning process, all the Korean reviews, although written in English, has been deleted from the original corpus. The latter is related to the fact that the study focuses on perception held by foreigners and not nationals.
- Period: February 2017 to January 2018 (the only exception is Four Seasons, as all the reviews were in 2018).

The corpus of data accounts 19 cases, all five-star hotels situated in the capital Seoul. A total of 730 reviews were sampled from initial total reviews of 23593 and 12642 in English, according to the criteria previously mentioned (refer to table 1).

| Cases | Total Rev | English Rev | Jan-18 |
|-------|-----------|-------------|--------|
| C1    | 367       | 198         | 11     |
| C2    | 2062      | 1247        | 55     |
| C3    | 1075      | 716         | 87     |
| C4    | 775       | 401         | 11     |
| C5    | 1655      | 1024        | 44     |
| C6    | 345       | 174         | 55     |
| C7    | 124       | 34          | 34     |
| C8    | 1019      | 368         | 25     |

|     |       |       |     |
|-----|-------|-------|-----|
| C9  | 1039  | 740   | 55  |
| C10 | 3497  | 1488  | 55  |
| C11 | 1895  | 1126  | 45  |
| C12 | 77    | 37    | 23  |
| C13 | 771   | 392   | 34  |
| C14 | 1325  | 909   | 35  |
| C15 | 1548  | 863   | 47  |
| C16 | 1276  | 880   | 15  |
| C17 | 1717  | 616   | 31  |
| C18 | 2683  | 1377  | 57  |
| C19 | 343   | 52    | 11  |
|     | 23593 | 12642 | 730 |

Table 1. Codebook 1 – Sampled cases

*Data analysis*

Content analysis is applied by the usage of the QDA Miner and Wordstat software for qualitative and quantitative analysis. A three-step process is applied at this stage; the first is cleaning the data, which consists on deleting useless information such as ‘nationality,’ ‘names,’ and ‘managers’ responses,’ as they are not evaluative components. The second step was to code the 19 documents of the corpus manually and to process with the identification of the codes gradually (refer to figure 2). A total of 22 codes were pinpointed, all of which are complaints’ related, negative intentions to rebook and non-convenient surrounding (refer to table 2).

| Codes | Codes descriptions                      |
|-------|---|
| SC1   | Room-related complaints                 |
| SC2   | staff communication complaints          |
| SC3   | Lobby- related complaints               |
| SC4   | Food and beverage- related complaints   |
| SC5   | Staff- related complaints               |
| SC6   | Location- related complaints            |
| SC7   | General- related complaints             |
| SC8   | price-related complaints                |
| SC9   | service- related complaints             |
| SC10  | amenities- related complaints           |
| SC11  | Front office-related complaints         |
| SC12  | Cleanliness-related complaints          |
| SC13  | Expectation unmet                       |
| SC14  | Wellness and comfort-related complaints |

|      |                                |
|------|--------------------------------|
| SC15 | Maintenance-related complaints |
| SC16 | Free extras inexistent         |
| SC17 | Decoration-related unhappiness |
| SC18 | Overall quality bad            |
| SC19 | Signage-related complaints     |
| SC20 | Customer value bad             |
| LN   | Intention to never return      |
| SE-B | Bad location                   |

Table 2. Codebook 2 – Variables and codes

Besides, the content analysis used one-tailed significance and was based on coding by variable, as well as column percentage per case. Regarding the link analysis, the multidimensional scaling options applied are with tolerance 0.01, and a maximum iteration of 50 and using a classical scaling. The link analysis was applied to the 22 codes under the code-occurrence. The following formula was used:

$$\text{Similarity} = \cos \theta = \frac{A \cdot B}{\|A\| \|B\|} = \frac{\sum_{i=1}^n A_i B_i}{\sqrt{\sum_{i=1}^n A_i^2} \sqrt{\sum_{i=1}^n B_i^2}}$$

Furthermore, although the percentage of good reviews and satisfied customers is over the dissatisfied ones, the authors have considered all the sampled reviews for the final analysis. In fact, it is preeminent in this study to recognize the complaints of unhappy as well as of happy customers (As shown in Figure 2).

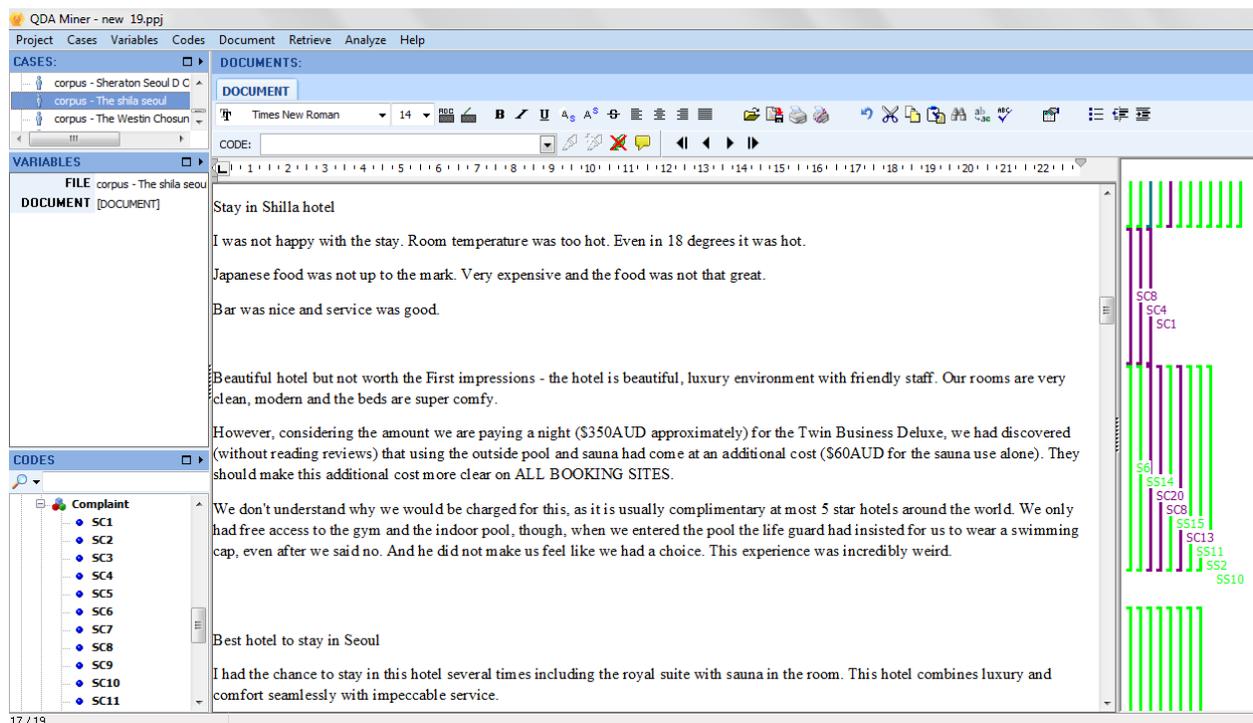


Figure 2. Manual coding processed - example

## RESULTS AND DISCUSSION

### *Cases similarity and Codes similarity*

The link analysis in figure 3 is established to analyze the relationship between 'the intention not to reuse and to recommend,' and 'dissatisfaction and negative sentiments' (refer to figure 3).

The case similarity analysis in table 3 reviews the likeliness between the 19 cases in accordance with code co-occurrence between the cases selected in terms of complaints (refer to table 2).

| Node | Group 1 | Group 2 | Similarity |
|------|---------|---------|------------|
| 1    | C9      | C12     | 0,857      |
| 2    | C15     | C17     | 0,833      |
| 3    | C2      | C3      | 0,829      |
| 4    | C5      | C14     | 0,816      |
| 5    | Node 2  | C18     | 0,811      |
| 6    | C8      | Node 1  | 0,779      |
| 7    | C10     | C16     | 0,767      |
| 8    | Node 4  | Node 6  | 0,764      |
| 9    | Node 3  | C6      | 0,749      |
| 10   | Node 7  | C13     | 0,747      |
| 11   | C7      | Node 5  | 0,739      |
| 12   | C11     | C19     | 0,730      |
| 13   | Node 8  | Node 10 | 0,727      |
| 14   | Node 9  | Node 11 | 0,725      |
| 15   | Node 14 | Node 12 | 0,704      |
| 16   | Node 15 | Node 13 | 0,690      |
| 17   | C1      | C4      | 0,672      |
| 18   | Node 17 | Node 16 | 0,622      |

Table 3. *Case similarity (Cosine Theta/ frequency)*

The similarity index (refer to table 3) confirms that most of the cases show a high percentage of likeness tending to 0.8 (almost complete similarity in code co-occurrence). There are 18 nodes; the least similar has a likeness index of 0.622. The main dissimilarities, related to the cases C1, C4, and C19, are simply explained by the low numbers of reviews sampled, three of which accounts 11.

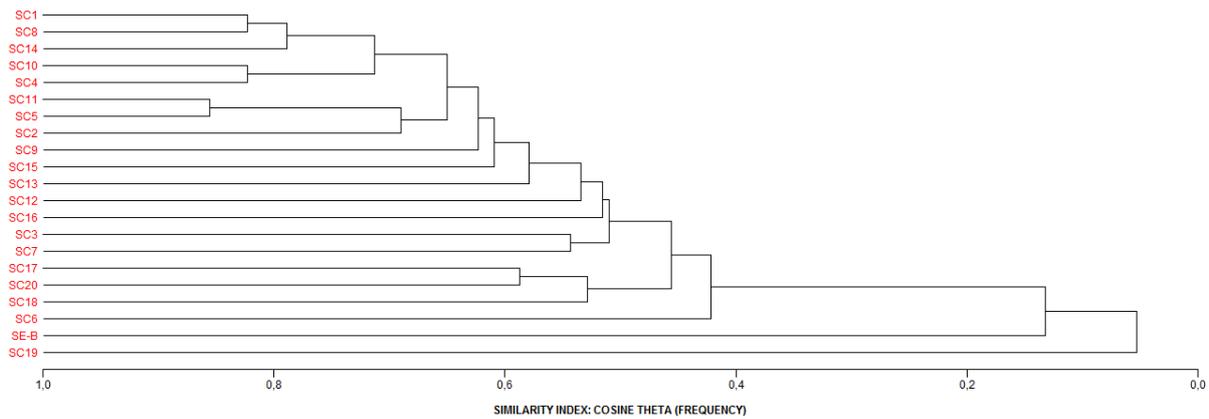


Figure 3. *Similarity index - codes (Cosine Theta/ frequency)*

Besides, the dendrogram of codes' similarities, using cos theta (refer to figure 3) shows clearly the high similarity index tending to 1 between the groups of codes 'SC1, SC8, and SC14' – 'the rooms, and the wellness and comfort related complaints'; 'SC4 and SC10' – 'food and beverage, and amenities related complaints'. This suggests that customers allocate significant importance to comfort in rooms as for high-end hotels. The main last similarity appears in the coupled codes 'SC5, SC11' – 'staff, and front office related complaints.' Therefore most of the complaints on staff are those on the front office services.

In addition, according to the codes link analysis, the least similar assigned codes to the others in terms of co-occurrence, are SC6, SC17, SC18, SC19, and SC20, leading to assert that the sampled upscale hotels have little complaints in terms of decoration, signage, location, overall quality, and customer value.

*Link analysis disloyalty - complaints*

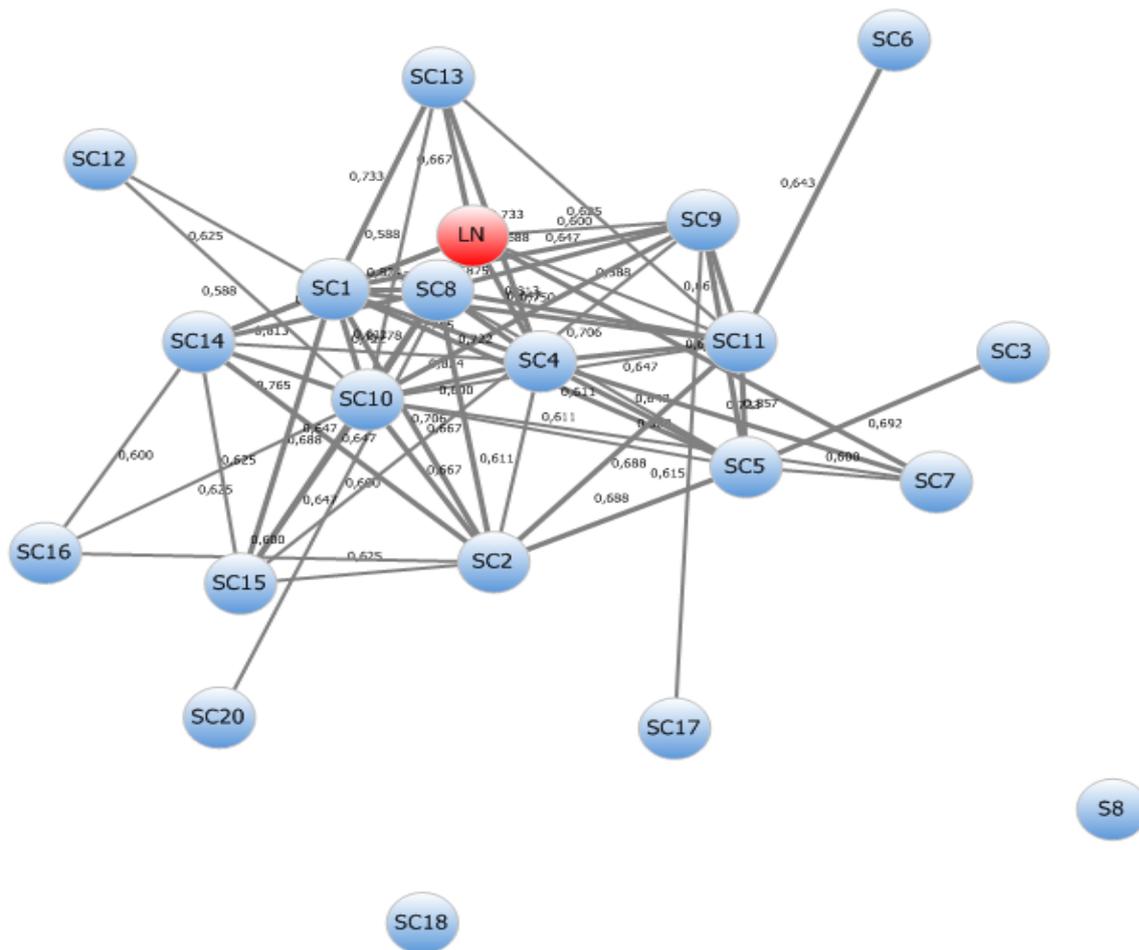


Figure 4. *Link analysis disloyalty - complaints*

The link analysis in figure 4, established to analyze the relationship between the 'future intention to be disloyal' and 'complaints and negative sentiments.'

A total of 21 nodes are identified with different levels of similarity. The first level of importance encompasses the 4 first nodes, with similarity values  $\geq 0.813$ , and includes SC8 (price-related complaints), SC11 (front office-related complaints), SC5 (staff related complaints), SC10 (amenities-related complaints), SC4 (food and beverage-related complaints) and SC14 (wellness and comfort-related complaints). The previously mentioned codes are found to be significant vectors influencing customers' negative future decisions to re-book. Thus, there is a strong relationship between disloyalty and high prices.

In addition, the least impacting attributes to disloyalty are mainly the triad of 'location,' 'technology,' and signage-related complaints.' This result regarding upscale hotels in Seoul is primarily due to the few claims made on those matters.

## CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

Several articles have been published analyzing online reviews of hotels, most of which focused on loyalty and factors behind the latter. This study is different regarding several issues. It studied the key complaints of customers, post visits in upscale hotels in a substantially urbanized city. Besides, it applied an in-depth text analysis of online reviews to study the link between the attributes thereof and existent customers' willingness not to recommend and not to reuse the actual hotels. The study concludes that disloyal customers are price-sensitive. The conclusion is partly aligned to the finding of Jani and Han (2014), in the way they assert the importance of comfort and excellency of services for customers. However, it is different on the side that the latter scholars confirm that high-end hotels' users are price-sensitive.

In addition, the main attributes impacting on customers' negative decisions to reuse or recommend hotels are staff attitudes and professionalism towards customers as well as comfortable accommodation.

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## CONCEPTS OF BIOECONOMY. ENVIRONMENTAL, ECONOMIC AND TECHNOLOGICAL APPROACHES

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### ABSTRACT

Bioeconomy uses new knowledge and innovation to produce a wide range of biobased products and energy, including also waste utilization. This is the reason that is considered as a basic component of sustainable development. Thus, while bioeconomy lies to science and technology, its perspective and impact may have quite wider results. The main approaches are ecological or technological oriented, while some others focus to the development of the bioeconomy market. The aim of the present paper is to shed some light on the emerging concept of bioeconomy, focusing to the Greek economic and production reality and to set the foundations for the shaping and determination of the meaning, using environmental, economic, scientific and technological approaches from specialized surveyed key-stakeholders. The research adds to the relative contemporary existing literature on the issue. Thus, it is anticipated to contribute to the clearing of the foggy landscape regarding the way we can define bioeconomy and how the concept could be evolved to a new scientific – research area. Furthermore, the research can be the catalyst for the formation of a concrete basis for the development of a national bioeconomy strategy in Greece and the development of supporting policies.

This paper will present the theoretical background, the research questions and the research methodology of the investigation. The primary research was conducted in Greece in 2020.

*Keywords: Bioeconomy, concept, bioeconomy strategies, sustainable development, biobased products, approaches, sustainable economic models*

### INTRODUCTION

According to the European Union's (EU) definition "bioeconomy comprises those parts of the economy that use renewable biological resources from land and sea – such as crops, forests, fish, animals and micro-organisms – to produce food, materials and energy (European Commission, 2012). The goal is a more innovative and a low-emissions economy, reconciling demands for sustainable agriculture and fisheries, food security, and the sustainable use of renewable biological resources for

industrial purposes, while ensuring biodiversity and environmental protection (European Commission 2012; 2017). More specifically, bioeconomy includes agriculture, forestry, fisheries and food industries along with traditional industries dealing with biomass utilization such as the paper industry, as long as parts of the chemical, biotechnology and energy industries. (European Commission, 2012; Knudsen et al., 2015).

Although the term of bioeconomy was initially introduced by scientists dealing with the industrial impacts of the evolutions in biology, the main reason for which bioeconomy became a “mainstream” policy idea in Europe, was the initiative of several executives of the European Commission to further promote the concept of bioeconomy (Knudsen et al., 2015; Bugge et al., 2016). Initially, two major dimensions were highlighted; the perspective for innovations through biotechnology and the perspective for substituting nonrenewable resources focusing to the use of biomass for the production of fuels, energy, chemicals and other biobased products (E.U., 2007).

Nowadays, bioeconomy uses new knowledge and innovation to produce a wide range of biobased products and energy, including also waste utilization (Bugge et al., 2016; Trigkas et al., 2020). This is the reason that is considered as a basic component of sustainable development (Zilberman et al., 2018). However, this fact does not automatically conclude that, for the sum of the value chains under the bioeconomy concept their sustainability is definite. The change in the contemporary approach of the bioeconomy has to do with the aim of achieving bigger efficiency in use of resources and biomass, maximizing the added value of the produced goods. That’s the contemporary meaning of the circular bioeconomy (Global Bioeconomy Summit, 2015; Adamovicz, 2017; Karagouni, 2018).

Additionally, EU through its bioeconomy strategy wishes to become the “headliner” that will lead global economy towards a sustainable model where the resources consumption for the production of goods and energy will not have non-reversible impacts. The EU bioeconomy strategy launched in 2012, aims to food safety, sustainable management of natural resources, the gradual disengagement of nonrenewable natural resources, the slowing of climate change and finally the enhancement of competitiveness and job creation (European Commission, 2017). However, this particular strategy has been under criticism by those who believe that is focused too much to the market and technological development (Bugge et al., 2016). Thus, while bioeconomy lies to science and technology, its perspective and impact may have quite wider results. In fact, bioeconomy is about a social transformation procedure, very dynamic and extremely complicated, aiming to the gradual shifting for a fossil-based economy to a sustainable biobased economy (Aguilar et al., 2018). Speeding up the growth of the bioeconomy concept, could result to significant social changes among the EU member states, since new opportunities for innovations emerge and new jobs are created, helping to the reformation of Europe towards a limited environmental footprint. Furthermore, it gives the

opportunity to rural and isolated areas for economic growth, creating new value chains in primary production and manufacturing (Trigkas et al., 2020)

Finally, its importance in policies globally, is recognized since, more than 40 countries internationally have incorporated the bioeconomy concept into their political agenda (Schütte, 2018), indicating that policies around the world are focusing to a sustainable biobased economy, with efficient use of resources, showing a transformational shift from practices of the past (Trigkas et al., 2020).

The aim of the present paper is to shed some light on the emerging concept of bioeconomy, focusing to the Greek economic and production reality and to set the foundations for the shaping and determination of the meaning, using environmental, economic, scientific and technological approaches from specialized surveyed key-stakeholders. Thus, we believe our research will set the direction for introducing and developing a bioeconomy strategy in the country, as part of other related policies and strategies such as the Greek National Circular Economy strategy, the National renewable energy action plan, or the Forest management strategy.

## LITERATURE REVIEW

It is quite evident that, technological evolution has helped the nations around the world to build a production model based on the exploitation of fossil fuels and materials, leading to an impressive economic and social welfare. However, we are urged to pay a high price for this progress as it is proved by the current major challenges of the 21<sup>st</sup> century, such as social inequality, climate change and scarcity of natural resources. (Alcamo et al., 2007; Tracy and Anne, 2008; Bauer et al., 2012; Faivre et al., 2017; Schütte, 2018). Especially for the Mediterranean region, studies predict that the climate change impacts, such as soils erosion and loss of agricultural land, food scarcity, temperature increase, loss of biodiversity and forest areas etc. will be more intense than other regions of the world (Brassioulis, 2011; Marquina, 2012; Alcon et al., 2020). Thus, the growth of the bioeconomy is emerging as an imperative and key-policy idea for the confrontation of the above-mentioned problems, contributing simultaneously to economic growth and social cohesion. Furthermore, an orthologous implementation of the bioeconomy model could significantly contribute towards the achievement of the sustainable development targets for 2030 (European Commission, 2012; European Commission, 2017; McCormick and Kautto, 2013; D'Amato et al., 2017).

This environmental part of the bioeconomy concept, based further to knowledge and innovation for the utilization of natural resources, seems to be able to propose solutions for the transition to a sustainable future (Kitchen and Marsden, 2011; Kleinschmit et al., 2017; Ramcilovic-Suominen and Pülzl, 2018; Lainez et al., 2018; Ghani et al., 2019). Sophisticated emerging technologies and innovations in forest and agricultural biomass utilization, water resources management and

aquaculture, biotechnology, in biofuels and bioenergy production and in biobased products development, can act as viable alternative solutions to the existing production models. The sustainability of these technologies and approaches can be further improved in combination with supplementary models of circular economy and green economy (D'Amato et al., 2017; Merli et al., 2018; Ferreira et al., 2018; Trigkas et al., 2020). This final approach has led the discussion to the further expansion of the concept, towards circular bioeconomy (Carrus and Damer, 2018; Karagouni, 2018).

Additionally, the cross-sectoral and interdisciplinary character of the bioeconomy leads to corresponding approaches and initiatives aiming to address environmental and socioeconomic challenges (Bran and Dobre, 2017), while the role of specific sciences as the biology, biotechnology, environmental and engineering sciences, economics and information technology sciences, are mentioned in the literature as the main disciplines that formulate the concept of the bioeconomy (Bugge et al., 2016). Supplementary, the further capabilities for the development of the bioeconomy are mirrored by the increasing demand and the rapid development for biobased products and markets respectively (Langeveld et al., 2010; Dammer and Carus, 2013; Peuckert and Quitzow, 2017; Falcone and Imbert, 2018). New opportunities for business ventures, creation of supply chains and markets for the biomass and biobased products, energy and related services, are emerging globally. However, this transformation of the economic model and market is not easy to become a new reality, because of the resistance and the status of the fossil-based industries in the global economy (Trigkas et al., 2020). Hence, the transition to the bioeconomy model is a matter that requires policy will and dynamic initiatives (Arundel and Sawaya, 2009; Staffas et al., 2013; El-Chichakli et al., 2016; ). According to Bünger (2010), more than 90% of oil-based products could be substituted by alternative biobased solutions, while predictions for the future show that till 2030 the one third of chemicals and materials and a 50% of the pharmaceutical market could be of biological basis (Bünger, 2010).

A basic element of the above transition is the strong support of research and innovation in combination with consumers behavior and understanding the existing fossil-based products, do not incorporate into their purchase value the total environmental cost. As mentioned, the introduction of policies for innovation, should be accompanied by motives for further expansion of the knowledge basis for new bio-based technologies and products. Simultaneously, the creation of synergies in a cross-sectoral and scientific level (e.g. agriculture, forestry, aquaculture, food production, chemicals, energy, biotechnology etc.), could offer integrated solutions for the global challenges. The implementation of contemporary methods for supporting skills and capabilities development among the policy makers, are considered to be key elements for the foundation of the bioeconomy pillars (Hakovirta and Lucia, 2019; Urmetzer et al., 2020). Additionally, most countries measure the contribution of bioeconomy in terms of added value and jobs creation, with the most of them to

evaluate in a restricted way this contribution in environmental and social terms (Bracco et al., 2018). This contribution measurement is becoming further difficult to be estimated, because of the fact of the cross-sectoral nature of the bioeconomy, or because of the lack of credible statistical data (Jander et al., 2020). The aim for monitoring the contribution of the bioeconomy into a country's economy, is not only to highlight its volume in economic terms but also to understand the full scale of potential direct and indirect benefits for a country (Linser and Lier, 2020) and to finally act as presuppose for introduction of integrated policies, governance and strategies for the bioeconomy at national and international level (Staffas et al., 2013; De Besi and McCormick, 2015).

Elements for the development of related strategies among countries, are considered to be the different characteristics of each country (e.g. economic, production models, technology levels, availability of resources, knowledge basis etc.), and the understanding of the interactions and intercorrelations among these factors (De Besi and McCormick, 2015; Indzere, 2019). Worldwide, a number of countries and international organizations have already developed dedicated bioeconomy strategies, such as the European Union (EU), the Organization for Economic Co-operation and Development (OECD), Australia, Finland, France, Germany, Japan, Malaysia, South Africa, Spain, Sweden, and the United States (Dieckhoff et al., 2015). In other countries, strategies are currently under development. Besides international and national activities, a number of regional bioeconomy initiatives and innovation networks have been established (Dieckhoff et al., 2015). According to a recent research of Papadopoulou et al. (2018), for Greece only two clusters/think tanks for the bioeconomy were recognized (the Greek Bioeconomy Forum and the cluster of Bioenergy and the Environment of Western Macedonia). Despite some differences, all official strategies envision a technology-based transition to the bioeconomy (Laibach et al., 2019; Priefer and Meyer, 2019). In criticism of this understanding, an alternative vision of the bioeconomy has been developed in the scientific and societal debate, focusing on socio-ecological aspects and alternatives. According to Priefer and Meyer (2019) the technology and environmental oriented implementation pathways for the bioeconomy are considered to be combinable, while, in the scientific and societal debates, these are seen as contradictory. Differences in visioning and planning for the bioeconomy, finally shape different strategies for the bioeconomy. While a country does not have an integrated approach, it tends to adopt a fragment approach. There is evidence that there are significant opportunities in Greece for the development of a wealthy and lucrative economy, based on renewable resources, environmental friendly technologies and innovations (Trigkas et al., 2016). However, effective growth of bioeconomy in Greece depends on successful cooperation of all stakeholders (state, business, citizens) (Trigkas et al., 2018).

The research questions that this paper tries to give concrete answers are:

Q1: Which are the main approaches that Greek key-stakeholders follow to shape the concept of bioeconomy?

Q2: Which one of these emerging approaches is prevailing

Q3: Are these approaches in line with the EU strategy for the bioeconomy?

Q4: How can these approaches become the foundations of a Greek national strategy for the bioeconomy?

We argue that our research contributes to the existing debate on the buzzing and emerging concept of the bioeconomy internationally and fills a scientific gap at regional level of a typical Mediterranean economy, enriching related literature.

## RESEARCH DESIGN AND METHODOLOGY

The primary research for this exploratory study focuses on Greek bioeconomy key-stakeholders such as environmental, economic and technological universities and research organizations, business associations and public authorities such as ministries dealing with natural environment. For the purposes of the survey, we used as our primary research tool a structured questionnaire, specially designed to approach and derive the structural components of the complex and buzzing bioeconomy concept, according to related literature and previous research on the issue. a broad understanding of the investigated issues. The data was collected by using the Google Forms app. The survey period was between March – July of 2020 and final 78 questionnaires were collected, while 71 were under evaluation, since 7 of them were not sufficiently completed and were excluded from our analysis. Our sample was 250 organizations belonging to the above categories of stakeholders. That results to a respond rate of 30%. Most of our sample, 230 – 92% were university departments.

Our questionnaire items were developed using a five-point Liker scales. The development of scales was based on empirical and theoretical contributions from bioeconomy scholars in Greece (Karagouni, 2018; Papadopoulou et al., 2018; Trigkas 2020) and after the relevant literature review.

The final questionnaire consisted of 17 questions grouped into 6 main categories. The first group included 3 questions about the knowledge of the bioeconomy, the 2<sup>nd</sup> group deals with the scientific approach of the concept including two questions of 20 items, the 3<sup>rd</sup> group was focusing to the technological approach (2 questions of 23 items), the 4<sup>th</sup> group to the environmental approach including 1 question with 15 items, the 5<sup>th</sup> group to the economic approach with 3 questions of 43 items, while the final group of questions was dealing with the profile of the surveyed organization.

In the preliminary stage of the study, the questionnaire was pre-tested on 5 related organizations. The questionnaire's pre-testing led to changes in the questionnaire, such as regrouping and reformulating

some questions, in order to reduce the size of the questionnaire, since the majority of the respondents appreciated the difficulty and the time length to complete the questionnaire a little complex.

The data will be recorded, processed and analyzed using the IBM SPSS Statistics 25 special statistical program, as well as the relevant frequency checks (Frequencies), descriptive statistics and correlations (Norusis, 2007).

## CONCLUSIONS

The confrontation of the urgent environmental, economic and social challenges global, presupposes the undertaking of drastic and dynamic initiatives and measures, with the alteration of the existing economic and production model, to be recognized as the most important. More specifically, the transition from a fossil-based economy towards a more biobased and sustainable economy, constitutes one of the prevailing solutions globally. However the concept of the bioeconomy, since it still stands as an emerging meaning for most of the countries – for Greece too – has become the field of different and sometimes contradictorily approaches by the stakeholders, depending each time on the specific characteristics that each part is incorporating. Furthermore, according to international bibliography, bioeconomy constitutes an interdisciplinary and cross-sectoral concept thus its complexity and its different point of approach to be magnified. Hence, we either see to prevail the ecological approach either the technological or the socioeconomic approach. Our initial findings are compatible with these conclusions of the related literature on the issue; however, differences emerge for the Greek reality which are further specialized to more detailed determinants of the bioeconomy concept. These different approaches on their point of view, can lead to the development of different strategies for the bioeconomy, depending to which one is prevailing each time.

Our research contributes to this debate and draws up the concept and the content of bioeconomy, through the opinions of specialized groups of stakeholders in Greece, which is expected to contribute – if not already have actively engaged so – to the shaping of the framework for the development of bioeconomy at national level. We argue that our research gives valuable input to the existing literature in order to be able to formulate a more concrete and clear definition of the bioeconomy concept, highlighting practical and managerial issues for its implementation as well, helping policy makers to develop and adopt an integrated strategy for bioeconomy. We also investigate at which level the opinions of bioeconomy experts in Greece are close to the existing EU strategy for bioeconomy and how a potential Greek strategy could be adapted to the main pillars and directions of the EU strategy.

Additionally, according to the approach that is investigating, the research presents practical implications of bioeconomy pathways which have to do with ways of biomass exploitation, improvement of biomass supply chain, characteristics and environmental performance of biobased

products, creation of new value chains and business ventures for bioeconomy, consequences on business operations and profitability, consumers behavior for biobased products as long as for the boosting of knowledge basis on the bioeconomy concept. Finally, as it was stated, these approaches can be framed from the adoption of a concrete basis for the development of a national bioeconomy strategy for Greece and the development of supporting policies.

The research adds to the relative contemporary existing literature on the issue and in a stronger manner the rather limited literature and research at Greek level. Thus, it is anticipated to contribute to the clearing of the foggy landscape regarding the way we can define bioeconomy and how the concept could be evolved to a new scientific – research area including specific principles and implementation methodologies. The nature of the research to address to research - academic and public mainly organizations, which may constitute the catalysts for the further diffusion and framing of the concept, supports our above conclusion.

Further future research is proposed to be implemented at international – European level and at consumers behavior level, in order to establish an integrated approach to the concept of bioeconomy which could shape the conditions for the final transition towards this model for the confrontation of global challenges.

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# BENCHMARKING OF SUSTAINABILITY ASSESSMENT TOOLS: LIMITATIONS, GAPS AND POTENTIALITIES FOR THE AGRARIAN SECTOR

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## ABSTRACT

Despite nowadays we finally perceive Sustainable Development – and inherently sustainable agriculture, as an essentiality to be achieved on a global level, there are still several concerns and limitations associated to our sustainability-oriented knowledge gap and prevailing assessment tools. It is also recognized that in order to truly understand the absolute meaning of sustainability and improve its appraisal we must review current practices regarding its assessment. Thus, this study aims to enlighten foremost, understandings and major traits of 105 distinguished assessment tools developed worldwide by a multitude of sectors. For such we conducted a structured literature review to comprehend major limitations and gaps regarding sustainability assessment among agricultural practices, followed by a categorization analysis. Results confirmed that, despite a considerable variety of instruments presented in literature as sustainability assessment tools, the majority continue to focus on particular affairs such as the environmental domain and farm-level evaluations. Additionally, by considering sustainability a dynamic and context-specific concept, it was concluded that one of the main reasons for research of this nature being frequently tagged as inadequate, could be advocated also by the fact that a considerable amount of sustainability assessment tools were developed to assess arable farming or simply labeled as universal tools. Finally, this work contribute to engage businesses managers and stakeholders to embrace the importance and weight of social and economic pillars when aiming for a complete and holistic assessment of their businesses sustainability level.

*Keywords: Sustainable development; Sustainability assessment tools; TBL; Sustainability evaluation; Categorization analysis.*

## INTRODUCTION

It is well known that agricultural production contributes significantly to contemporary concerns - such as climate change, water pollution and loss of biodiversity, while being also responsible for the

incremental consumption of limited natural resources (Olde *et al.*, 2016; Hayati, 2017). Nevertheless, other activities related to agriculture are also substantially responsible for social and economic affairs. This tie is related to such activities' intrinsic impacts over human wellbeing, territorial development and business growth. It is in this remark that today we finally perceive sustainable agriculture as a vital requisite to achieve Sustainable Development (SD) on a global level - justifying why the pursuit for sustainability had a strong stimulus in this field (Hayati, 2017).

Also, the source of this emergent global sense of responsiveness and awareness on how susceptible ecological ecosystems truly are to certain human activities, was mostly caused from the acknowledgement of natural resources depletion, apace with projections of an irrepressible population growth. In reality, such led to both concepts of food security and sustainable agriculture to become the most spoken topics of this millennium (Dantsis *et al.*, 2010; Kirchmann *et al.*, 2016; Hayati, 2017; Schrama *et al.*, 2018; Herath and Rathnayake, 2019; Independent Group of Scientists appointed by the Secretary-General, 2019). However, this is not by far a contemporary topic. It is defended that the idea was coined by the end of the XVIII century, despite academia solely started to show interest over environmental impacts around the 1960s, being later on followed by institutional organizations around the 80s (Hayati, 2017; Iyer and Reczek, 2017; Herath and Rathnayake, 2019).

In regard the first assessment tools being developed, it was reported by Rosnoblet, Girardin, Weinzaepflen, & Bockstaller (2006) how these tended to share a strong emphasis on environmental impacts until late 90s - over neglecting all other fundamental categories such as social, economic, institutional, political and ethical. Nevertheless, according to other specialists, such alternative components continue until today to remain under-represented among sustainability appraisals (Olde *et al.*, 2016; Hayati, 2017). Beyond this recurrent claim that most of the measurements conducted so far tend to focus predominantly either on environmental concerns or specifically on assessing certain impact categories – such as Greenhouse Gas (GHG), Carbon footprint or Water footprint (Rosnoblet *et al.*, 2006; United Nations, 2007; Bockstaller *et al.*, 2008; Binder, Feola and Steinberger, 2010; Thiollet-scholtus and Bockstaller, 2015), another shortcoming pointed out among literature is in regard the grand majority of tools, besides being context-specific, have been expressly developed to assess arable crops or livestock production (Thiollet-scholtus and Bockstaller, 2015; Hayati, 2017). In line with that assumption, it is commonly remarked a considerable shortage among the scientific body of proper and suitable general assessment frameworks designed specifically to evaluate other crops, such as permanent crops (Christ and Burritt, 2013; Thiollet-scholtus and Bockstaller, 2015; Flores, 2018).

The bottom line here is that, despite today we finally perceive Sustainable Development (SD) – and subsequently Sustainable Agriculture, as an essentiality to be achieved on a global level (Hayati, 2017), there is still a clear reluctance regarding such transition. According to literature, the fateful hamper is

the fact that despite a much debated concept with a wide range of implications, to date there is not a widely accepted definition for Sustainability concept (Christ and Burritt, 2013; Santiago-Brown *et al.*, 2014, 2015; Thiollet-scholtus and Bockstaller, 2015; Velten *et al.*, 2015; Hayati, 2017; Keichinger and Thiollet-Scholtus, 2017; Martins *et al.*, 2018; Merli, Preziosi and Acampora, 2018; Pomarici and Vecchio, 2019). From Our Common Future report published in 1987 by the Brundtland Commission, to the most recent 2030 Agenda for Sustainable Development goals (SDGs) relaunched by the United Nations, the perception of what to be sustainable really means have gradually evolved over the years (Hayati, 2017; Herath and Rathnayake, 2019; Ramos, 2019). Even today a multitude of distinct Sustainability definitions can be found among specialized literature (Goldman, 1995; Hansen, 1996; Velten *et al.*, 2015; Hayati, 2017). This ambiguity and blurred web of meanings is consequently pointed as the cause for the development of inadequate sustainability assessment research - characterized by biased design, erroneous interpretations, flawed conclusions, and serious incompatibility issues due to data comparison difficulties (Gafsi and Favreau, 2013; Santiago-Brown *et al.*, 2014; Iyer and Reczek, 2017; Martins *et al.*, 2018). As an attempt to overcome such conceptual vagueness and diverseness, Sustainability per se is mostly perceived today in a Triple Bottom Line (TBL) perspective (Hayati, 2017). The TBL theory, created by Elkington (1994) defends that People, Planet and Profit are imperative Sustainability principles, promoting the idea that a sustainable development occurs when organizations show responsibility toward environmental health, social equity and economic viability (Renton, Manktelow and Kingston, 2002; Santiago-Brown *et al.*, 2014; Graça *et al.*, 2017; Hayati, 2017; Iyer and Reczek, 2017).

In summary, even though this search for sustainable development and sustainable agriculture has been in the spotlight for the last generations, today there are still several concerns and limitations pointed out among specialists in regard to our sustainability-oriented knowledge gap and prevailing assessment tools. A formal effort is therefore still necessary to consistently express the theories and frameworks developed in sustainability science and within other disciplines that represent the body of accumulated knowledge, as well as integrated methodologies. Aligned to that, it is also assumed that to truly understand and improve our sustainability-oriented knowledge, we must not only comprehend and identify sustainability definitions and principles, but also review current practices regarding its assessment (Flores, 2018). Beyond that, the fact that sustainability is also considered a time-specific and location-specific concept, imply that any assessment tool must be linked to the context in which the process does operate (Hayati, 2017). Thus, from recognizing assessment indicators and frameworks as a powerful performance evaluation tool (Ramos, 2019), this study aims to enlighten foremost, understandings and commonalities over such methodologies. It is our belief that this work will serve as a primary source of elucidation and guidance for those researchers and policy makers who aim to make

sustainability more measurable and less ambiguous. The key research question is: given the plethora of sustainability assessment tools, what are the main common grounds and differences between them? And, how difficult it is to find proper methods capable to evaluate accurately and holistically how sustainable a certain good or activity really is? In regard to such, despite the ideology of sustainable development is being pursued worldwide by governments, decision makers and society in general from different fields, it is with general consensus the inherent relevance of agribusinesses in that path towards sustainability. For that matter, our study was initially focused in that sector, even though there is a clear influence and participation of other industries. Thus, this work conducted a critical review to provide a structured search in the body of literature, within the goal to identify and develop a categorization analysis on major sustainability assessment tools. This study aims to collect evidences over the most distinguished and available sustainability assessment tools developed until this present, and our higher purpose was also to develop a guiding work capable to support further research over assessment tools and sustainability evaluations. Despite the existence of several articles reviewing and analyzing assessment instruments, these are generally presented as too narrow and too conceptual – mostly for focusing on a single sustainability domain, on a particular environmental impact, or solely on a few spotted tools (Van Der Werf and Petit, 2002; Rosnoblet *et al.*, 2006; Ferrara and De Feo, 2018). In this sense, a structured analysis over current sustainability assessment tools developed worldwide by a multitude of sectors is here presented, where common grounds were summarized in order to compare and analyze all identified instruments. This approach is seen as appropriate to guide decision makers into micro-level performance evaluations. The rest of this paper is organized as follows: the next section presents a brief literature review on sustainability assessment, where the effectiveness of assessment tools is also discussed. Afterwards we describe the methodology used, followed by the results and discussion, and finally the conclusion.

## **BACKGROUND OF THE STUDY: SUSTAINABILITY ASSESSMENT**

Specialists finally recognize that it is when attempting to thrive between all Sustainability components, that the evaluation methodology being used can play a key role (Marta-Costa and Silva, 2013b; Kirchmann *et al.*, 2016; Schrama *et al.*, 2018). Assessment tools are therefore nowadays, not only seen as a vital instrument and a powerful aid to support the transition towards sustainability, but their capacity to guide and support whole countries to take informed decisions has also been well established (Ramos, 2019). However, despite the process of designing systems from sustainable principles became a leading objective among scientific research and policy agendas, the reality is that the assessment of their performance and impacts still remains controversy and critical until this present. A pointed reason is the appearance of many modelling approaches with a wide variety of tools generated to evaluate

sustainability. Such panoply of frameworks and indicators from different fields is related to the fact that a widely accepted methodology for the creation of a scientifically substantiated system of measurements hasn't yet been developed (Dantsis *et al.*, 2010; Koochafkan, Altieri and Gimenez, 2011). Another defended motive is the accession of multidisciplinary and cooperation initiatives (Abdul Murad *et al.*, 2019). The aim of this section is to present an overview over sustainability tools heterogeneity, along with a discussion regarding assessment methods' limitations and ways to evaluate their accuracy and functionality.

Even though sustainability assessment tools are generally characterized accordingly to their scope, content and structure, such instruments can vary widely in different aspects – from geographical coverage, to data collection, data analysis, scale and levels, assessment methodology, stated purpose, final goals, sectoral comprehensiveness, target groups, typology of indicators, suitable data, applicability, analysis, the degree of stakeholder participation, resources needed, costs, purpose, and the time required for its implementation (Dantsis *et al.*, 2010; Olde *et al.*, 2016; Hayati, 2017). For that matter - and usually in consonance with each author's interpretation of the concept, sustainability assessment tools tend to be categorized into different models or families (Flores, 2018). As an example, we can find among literature different categorization tool groups regarding: i) major goals and principles - from an ideological approach, to a system-oriented concept (Marta-Costa & Silva, 2013a); ii) implementation approach – such as the basic top-down and bottom-up approach (Binder, Feola and Steinberger, 2010; Abdul Murad *et al.*, 2019); iii) scale and levels of assessment – from the farm gate, to regional, national and in some cases even at the global level (Dantsis *et al.*, 2010); iv) assessment typology – from sustainability indicators, to sustainability indexes, reference systems, frameworks, Eco points, linear programming models, and trade-off models of production alternatives (López-Ridaura, Masera and Astier, 2002; Binder, Feola and Steinberger, 2010; Van Passel and Meul, 2012; Hayati, 2017). However, it should be bared in mind that there are several more other approaches and categories outside the ones just mentioned here.

An important decision factor when selecting the most appropriate assessment tools, is based on the scale and levels of assessment. Scale concept refers to the spatial, temporal, quantitative or analytical dimensions used by scientists to measure and analyze objects and processes, while levels on the other hand refer to locations in that scale (Van Passel and Meul, 2012). Different scales can therefore measure different levels. In spite any scale of assessment is relevant to sustainability outcomes at some extent, it should be acknowledged that fewer data starts being available from regional, to higher scales. As mentioned by Hayati (2017), as we move to higher levels of the hierarchy – such as regional, national and global levels, it becomes increasingly difficult to weigh up and trade off in any meaningful way. That is why assessments at farm-level continues until today to be the most studied one, followed by the

regional and national scales – although to a much lesser degree (Rosnoblet *et al.*, 2006). Thus, the complexity and the scale of the system we are assessing, are indeed a crucial point in regard the assessment tool to be chosen due to the panoply of different assessment instruments possible to find. Regarding different typologies, as simple arrangements we can identify groups of monetary tools – such as the Cost Benefit Analysis, the Index of Sustainable Economic Welfare and the Genuine Savings; or groups of biophysical models – such as emergy analysis or exergy, and the ecological footprint (Van Passel and Meul, 2012; Hayati, 2017). In the case of Sustainability Indicators, these can go from simple and isolated, to indicators set or even composite indicators. These last are capable to aggregate in one numerical value relevant information from various indicators in order to evaluate the system's sustainability level into a single Sustainability Index (López-Ridaura, Masera and Astier, 2002; Marta-Costa and Silva, 2013a). As for more complex levels, we have Reference Systems - which are mostly used when assessing ecological sustainability in an ecosystem perspective (López-Ridaura, Masera and Astier, 2002; Marta-Costa and Silva, 2013a), or Sustainability Assessment Frameworks. According to Marta-Costa and Silva (2013a) these frameworks' conceptual and practical efforts tend to be qualitatively differentiated from the other groups as they have a more complex and rigorous structure. Sustainability Indicators have become a widespread type of tool to evaluate sustainability and are considered selected parameters that illustrate conditions of the analyzed systems (Bélanger *et al.*, 2015). Regardless the notorious abundance and diversification of available instruments for sustainability evaluation, indicators-based assessments have been until recent times the most widely used platform since the Sustainability Indicators Phenomenon in the 1990's – translated into an explosion of sustainability indicators among the scientific body and published literature (Rosnoblet *et al.*, 2006; Christ and Burritt, 2013; Olde *et al.*, 2016; Hayati, 2017; Abdul Murad *et al.*, 2019; Ramos, 2019). Sustainability Indicators have also been recognized as a tool that reduces the descriptions and integrates information from complex systems (Parent *et al.*, 2013). These are for that matter described as capable to reflect complex and difficult-to-access information of a particular system – while able to also provide models and simulations that often can have a predictive function (Bockstaller *et al.*, 2008). The complexity of an indicator-based tool can vary on practical affairs such as: i) are assessments to be treated individually; ii) as part of a weighted set; or iii) combined into a composite index (Hayati, 2017). In regard Single Indicator Assessments – even though being often criticized for generally presenting a low quality of prediction, these continue to be the most commonly used method when evaluating a specific practice (Hayati, 2017). However, it has been suggested that single indicators should be combined in order to improve the assessment accuracy (Bockstaller *et al.*, 2008). Composite indicators, according to Rosnoblet *et al.* (2006), are already being contemplated by almost one third of the methods developed, and in such cases indicators' results tend to be presented in an aggregated way - generally

with a simple sum or mean of values. On the opposite side, other authors defend that not only the use of multiple indicators can be confusing in practice, but there is also a clear knowledge-gap regarding efficient integration methods or aggregation procedures when dealing with various factors (Bockstaller *et al.*, 2008).

In regard the structural frameworks to assess sustainability, these are categorized on systematic approaches and disciplinary contents. Assessment Frameworks were considered relevant to explore, once despite a clear proliferation of the previously mentioned sets of sustainable agriculture indicators, the challenge on selecting and designing proper assessments led to the development of necessary structural approaches. The intention for creating such guidelines was that these approaches were capable to guide the entire process of assessing sustainability (United Nations, 2007; Cândido *et al.*, 2015). There are 5 official conceptual frameworks: i) the Driving Force-State-Response frameworks (DSR) - originally named Pressure-State-Response Model (PSR); ii) the Issue-based or Theme-based Frameworks; iii) Capital Frameworks; iv) Accounting Frameworks; and finally v) Aggregated Indicators. As mentioned before, despite all the inherent challenges related to the aggregation process, this type of conceptual framework continue to be acclaimed due to their capacity to simplify and quantify complex systems, while facilitating communication. However, when proceeding to a cross-country comparison, existing conflicts among indicators' ratings become clear - stressing incompatibility issues, inconsistencies in statistical databases and difficulties for data comparison between countries with different development levels (Sopilko *et al.*, 2019).

Despite according to literature, when choosing a specific assessment tool to measure sustainability in a particular moment, its effectiveness generally depends on factors such as available data, time, and budgetary constraints (Hayati, 2017), today it is also accepted that in order to evaluate complex systems, assessment tools must also be capable of translating dynamic natures (Binder, Feola and Steinberger, 2010). Aligned to that, one of the key elements to successfully assess sustainability is that of defining and properly select effective indicators - indicators globally applicable, cost-effective, comprehensive, realistic and comparable (Hayati, 2017). Notwithstanding, to be able to find such distinct characteristics seems to be one of the big challenges.

To finalize this section, the point at issue is the fact that, despite all the potentialities of available tools being used nowadays to assess sustainability, the majority is still tagged by considerable disadvantages or limitations (Dantsis *et al.*, 2010). A critical downside is when the central idea of sustainability - due to its ambiguousness and vagueness, is not adequately addressed by the selected assessment criteria and gives room for biased approaches or erroneous results' interpretations (Ramos, 2019). As defended in Zahm *et al.* (2008), assessment methods should aim to characterize key concepts taken from the definition of SD, while being at the same time scientifically sound, relevant to the issue being studied,

sensitive, easily accessible and comprehensible among end users. An accurate and functional assessment tool must for that matter focus and clarify what exactly needs to be measured, and also what to expect from the results (Ramos, 2019).

## METHODOLOGY

In this section the research methodology and the sources of the data analyzed are presented. A structured literature review was conducted in order to comprehend major limitations and gaps regarding sustainability assessment practice, followed by an exploratory analysis designed to identify and scrutinize distinguished sustainability assessment methods proposed all over the world by a plethora of sectors.

After identifying major available sustainability assessment methods, a categorization analysis was therefore conducted by observing pivotal content, common grounds and differentiating features. Through such approach it was possible to explore and compare several assessment tools on the same basis. This study was structured twofold: first we started by reviewing what has been said on sustainability meaning and its measurement effectiveness. For such all peer-reviewed scientific journal volumes and issues published until 2020 were searched using major online citation databases - Science Direct/Scopus, Web of Science and Google Scholar. The search was focused over the keywords "sustainab\* assess\*", and "agri\*". A preliminary overlook on the title and abstract of 621 papers was undertaken to verify if they fit the scope of this study, and to identify key authors or references. From here, a snowball sampling strategy was mostly used to enhance the process by deep reviewing 138 of the most relevant cited references. One of the key criteria was to select all studies validating or testing some type of sustainability assessment methodology. Following this step we proceeded into an overview and categorization off assembled sustainability tools, identified as capable to properly evaluate different production systems. For such, 3 main categories and 1 minor were explored: i) spatial level covered; ii) fundamental dimensions of sustainability considered; iii) main sectorial coverage; and iv) peer reviewed tool. The fourth category was added in order to support further validation opportunities. All categories are presented and described in Figure 1.

| Categories |                           | Importance   |
|------------|---------------------------|--|
| (i)        | Scale and Levels          | Scale concept refers to the spatial, temporal, quantitative or analytical dimensions used by scientists to measure and analyze objects and processes, while levels on the other hand refer to locations in the scale. The perception of scale is decisive when dealing with sustainability assessment, and nowadays it is already possible to measure and monitor agricultural sustainability at different scales and levels.<br>Spatial scale: (1) farm-level; (2) regional-level; (3) national-level; (4) global-level<br>Production scale: (5) product-level; (6) farm-level; (7) sector-level                                    |
| (ii)       | Sustainability Dimensions | Sustainability is considered a dynamic concept - seeking to achieve a balance in space and time; and normally involves at least three independent but interrelated dimensions – ecological, social and economic.<br>(1) Environmental (2) Social (3) Economic (4) Institutional  |
| (iii)      | Sectorial Levels          | Sustainability assessment methods are being developed and proposed all over the world, to a plethora of sectors. It is important to use consistent classifications and definitions at sectoral levels.<br>(1) Universal (2) Agrifood (3) Permanent crops (3.1) Viticulture (3.2) Coffee (3.3) Cocoa (3.4) Fruit trees<br>(4) Smallholders (4.1) Peasant farming (5) Horticulture (5.1) Greenhouse production (6) Annual crops (6.1) Rice farming<br>(6.2) Arable farming (6.3) Sugar cane (7) Livestock (7.1) Poultry (7.2) Dairy<br>(8) Manufacturing (8.1) Bioenergy (8.2) Biofuel (8.3) Oil companies (8.4) Palm Oil (9) Forestry |
| (iv)       | Peer Review               | The validity of Sustainability Assessment Tools based on journal peer review is seen as critical once it constitute true performance indicators that such are capable of evaluating a reasonably valid assessment of a certain production system.<br>(1) Yes (2) No  |

Figure 1. Categories and variables used to categorize identified sustainability assessment tools.

## RESULTS AND DISCUSSION

This reviewing process over specialized literature on sustainability meaning and ways to assess it, was the foundation for the identification and selection of major sustainability assessment tools developed and available worldwide until this present moment. After scrutinizing major cited references on this subject we were able to identify 105 different sustainability assessment tools developed by a plethora of sectors. Following their identification, all instruments were listed for further analysis, with an initial description on relevant categorization and classification understandings. As shown in the full list provided in the appendices (Table 1), from individual indicators, to indicators-set, composite index and frameworks, all distinguished tools were listed, organized and categorized afterwards accordingly to: i) official name; ii) spatial levels covered; iii) sustainability dimensions considered; iv) major sectorial comprehensiveness; and v) the main reference.

First impressions confirm the statement from Dantsis et al. (2010) regarding an extensive number of developed tools until this date, along with their heterogeneity by differing in all categories determined at this stage. Another remark is in regard the most common features reported among literature between the most prominent assessment tools (Figure 2). Results confirm that, despite this vast display of different instruments presented as sustainability assessment tools, the reality is that the majority continue to focus on particular affairs already pointed out by specialists in literature - such as environmental evaluation at farm-level scale. On the other hand, and as expected, agricultural sciences show a leading concern over this subject, where a clear dominance of tools developed to evaluate sustainability in agricultural systems, is also shown.



Figure 2. Illustration comparing 5 of the most common features reported among literature, being covered by all 105 identified assessment tools on spatial level, sectorial level and sustainability dimensions. The 3 pillars variable in the category of dimensions of sustainability, is regarding the three fundamental TBL components, where the 4 pillars variable adds the institutional component

Thus, main results point to a notable supremacy of tools capable to assess sustainability at farm-level, showing a proportion of 65 tools designed for such, out of the 105 instruments. Such findings are in concordance with previous conclusions stated in literature, such as in Hayati (2017) and Rosnoblet et al. (2006). Both remarked how assessments at farm-level continue to be the most studied ones, as it facilitates the appraisal process by allowing a better weigh up and trade off in a meaningful way. In regard major sustainability dimensions being covered by developed assessment tools, despite the TBL perspective continues to gain a considerable support among specialists – not only from the conceptualization of sustainability meaning, but also among the methodologies developed to assess such, there is still a reluctant single-domain prevalence and preference on the environmental scope. In summary, despite a manifold of tools being developed until this present to evaluate sustainability levels, an affinity towards environmental concerns continues to endure over a more holistic perspective - with 46 out of 105 tools being designed to only evaluate environmental affairs, versus 34 presented as capable to cover all 3 fundamental pillars of sustainability: economic, social and environmental. Thus, the claim defended by Binder et al. (2010), Bockstaller et al. (2008), Rosnoblet et al. (2006), and Thiollerscholtus and Bockstaller (2015), regarding the fact that most of the measurements conducted so far tend to focus predominantly either on environmental concerns or specifically on assessing certain impact categories, continues to be valid at this present. Subsequently, statements from Rosnoblet, Girardin, Weinzaepflen, & Bockstaller (2006), claiming that other categories such as social and economic started to be gradually introduced into sustainability-related studies by academia since 1995, were clearly not confirmed by our results. As shown in Table 1, only 2 designated sustainability tools of the full list were specifically developed to evaluate social-related evidences, and 9 out 105 specifically assessed economic domains, against 46 tools designed to merely assess environmental affairs.

Finally, in regard the sectorial level of comprehensiveness – and as expected due to our search keywords, instruments developed to assess agrifood systems were dominant among the full list of 105 tools. However, when scrutinizing each domain of the agricultural league, there was a clear inclination for methodologies expressly developed to assess arable crops. Thus, here too results confirm statements

shared by specialists, such as Hayati (2017) and Thiollet-scholts and Bockstaller (2015). On the other hand, despite being defend among literature how tools of this nature should be context-specific, the reality is that one quarter was labeled as universal (27 out of the 105 tools).

## CONCLUSIONS

This section shows how the work advances the field from the present state of business knowledge base. In order to advance understandings over sustainability assessment through a categorization analysis, a strategic and critical review was developed. To begin with, an extended structured literature review allowed to identify key essentialities to take into consideration when willing to properly and holistically assess the sustainability level of any given complex system. The goal was to gather relevant information regarding critical sustainability assessment challenges and its limitations, along with key insights on assessment effectiveness - which proved to be crucial when upholding any categorization criteria and to discuss the results. From such exploratory approach, a total of 105 available sustainability assessment tools designed all over the world by different sectors were also identified and listed. Despite our initial search focused over sustainable agriculture due to its intrinsic relevancy on this pursuit towards sustainable development, our main goal was to deep comprehend and explore distinguished tools, through a categorization analysis perspective. All categories analyzed were grounded over a set of established criteria supported by literature: from their spatial level covered, to main sectorial comprehensiveness, to the sustainability domains considered.

Findings confirmed several evidences found among literature – from a considerable number of sustainability assessment tools developed until this date, along with its heterogeneity regarding their scope, content and structure, to a clear domain of farm-level assessments over environmental domains. An interesting evidence was regarding the sectorial comprehensiveness of most tools. As expected, the grand majority of tools listed in this work were developed to assess agricultural systems. However, there was a considerable affinity towards arable crops, confirming once again previous statements from the literature. On the other hand, a curious finding was in regard the fact that one quarter of all 105 tools analyzed, was labeled as universal tool. This result can be a signal of unconformity and unreliability among assessment tools, due to the realization that any sustainability evaluation must be linked to the context in which the system operates. By recognizing that sustainability - a dynamic time-specific and location-specific concept, is built over a perpetual search for balance and equilibrium, implies that any assessment tool designed to appraise any business, has imperatively to assure context comprehensiveness. The reality is that among the vast abundance of tools available nowadays to assess sustainability – beyond the incessant focus on environmental concerns, the fact that a considerable portion shares a clear affinity towards arable farming, while the other does not assure any context

specificity at all, allows us to conclude that currently it is still difficult to find proper methods capable to evaluate accurately and holistically a certain good, activity or system. Also, this inadequacy among assessment tools characterized by biased and flawed design, can be pointed as an important drawback on our urgent pursuit for a more sustainable world.

To finalize, this work can also contribute to engage business managers and stakeholders to embrace the importance and weight of social and economic pillars when aiming for a complete assessment of sustainability. Regardless the field business base we are dealing with, it is imperative to apply a multidisciplinary perspective when aiming to measure or promote sustainable development. Thus, it is not only necessary to assure adequate scales and levels of assessment in order to have access to all fundamental information, but also to accept that simply focusing over environmental affairs is already not sufficient in our modern world. It is therefore necessary to integrate economic models linked to assessment systems based on human well-being in order to succeed in this search for sustainability.

The authors of this work acknowledge the limitations associated with research of this nature - regarding validity, reliability, and generalization of findings. Nevertheless, our findings are seen as a fundamental initial leap, for providing relevant features on common ground over 105 distinguished sustainability assessment tools from different sectors. This study can therefore be seen as a first-glance guideline to assess or develop a sustainable business – either in the agricultural sector or beyond. However, due to the inaptitude to assure fundamental factors identified as essential for the effectiveness of the assessment procedure, we encourage further research over spotted tools, where multivariate methods with different algorithms and statistical tests should also be used upon the analysis.

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## APPENDIX

| N  | Tool            | Name  | Spatial level (i)          | Sustainability dimensions (ii)  | Sectorial levels (iii) | Peer review (iv) | Main reference               |
|----|-----------------|---|----------------------------|---------------------------------|------------------------|------------------|------------------------------|
| 1  | ANS             | Adjusted Net Saving   | national                   | economic                        | universal              | Yes              | United Nations (2007)        |
| 2  | AEMBAC          | European Analytical Framework for the Development of Local Agri- Environmental Programmes | local                      | environmental                   | agri-food              | Yes              | Bastian et al. (2007)        |
| 3  | AESIS           | Agro-Environmental Sustainability Information System                                      | farm                       | environmental                   | agri-food              | Yes              | Pacini et al. (2009)         |
| 4  | Agro-Eco-Index  | -   | farm                       | environmental                   | agri-food              | Yes              | Viglizzo et al. (2006)       |
| 5  | ANCA            | Annual Nutrient Cycle Assessment  | farm                       | environmental                   | dairy                  | Yes              | Aarts et al. (2015)          |
| 6  | APOIA-NOVORURAL | System for Weighted Environmental Impact Assessment of Rural Activities                   | farm                       | environmental                   | agri-food              | Yes              | Rodrigues et al. (2010)      |
| 7  | ARBRE           | Arbre de l'Exploitation Agricole Durable  | farm                       | environmental, social, economic | agri-food              | Yes              | Pervanchon (2004)            |
| 8  | AUI             | Agrarumweltindikatoren  | farm                       | environmental                   | agri-food              | No               | www.blw.admin.ch             |
| 9  | Avibio          | AViculture BIOlogique   | farm, sector               | environmental, social, economic | poultry                | Yes              | Pottiez et al. (2012)        |
| 10 | BioSTAR         | Bioenergy Sustainability Target Assessment Resource                                       | sector, regional, national | environmental, social, economic | bioenergy, biofuel     | Yes              | Pollesch (2016)              |
| 11 | BROA            | Biodiversity Risk and Opportunity Assessment  | landscape                  | environmental                   | agri-food              | No               | www.batbiodiversity.org/broa |
| 12 | CALM            | carbon accounting for land managers   | farm                       | environmental                   | agri-food              | Yes              | CLA (2010)                   |
| 13 | CaneLCA         | -   | farm, regional             | environmental                   | sugarcane              | Yes              | Renouf et al. (2018)         |
| 14 | CCAFS-MOT       | Climate Change, Agriculture and Food Security Mitigation Option Tool                      | farm, regional             | environmental                   | agri-food              | Yes              | Feliciano et al. (2017)      |
| 15 | COMET- Farm     | Carbon Reporting Tool indicator   | farm                       | environmental                   | agri-food              | Yes              | USDA (2019)                  |
| 16 | Cool Farm Tool  | -   | farm                       | environmental                   | agri-food              | Yes              | Hillier et al. (2011)        |

|    |                       |   |                         |                                 |  |     |                                     |
|----|-----------------------|---|-------------------------|---------------------------------|--|-----|-------------------------------------|
| 17 | COSA                  | Committee On Sustainability Assessment Indicator  | farm                    | environmental, social, economic | coffee, cocoa  | Yes | COSA (2013)                         |
| 18 | Cost Benefit analysis | -   | product                 | economic                        | universal  | Yes | Costanza et al. (1997)              |
| 19 | Coteur et al. (2014)  | -   | farm                    | environmental, social, economic | fruit production, arable farming, greenhouse cultivation | Yes | Coteur et al. (2014)                |
| 20 | Crop.LCA              | -   | farm                    | environmental                   | arable farming   | Yes | Goglio et al. (2018)                |
| 21 | Dairy Farms+          | -   | farm                    | environmental                   | dairy  | Yes | AGÉCO (2016)                        |
| 22 | DairyGEM 3.3          | -   | farm                    | environmental                   | dairy  | Yes | Rotz et al. (2016)                  |
| 23 | DSAI                  | Dairy Stewardship Alliance initiative   | farm                    | environmental                   | dairy  | Yes | Matthews (2010)                     |
| 24 | DairySAT              | Dairy Self-Assessment Tool  | farm                    | environmental                   | dairy  | Yes | DairySAT (2015)                     |
| 25 | Dantsis et al. (2010) | Multi-criteria Analysis Tool  | regional                | environmental, social, economic | arable farming   | Yes | Dantsis et al. (2010)               |
| 26 | DELTA                 | -   | farm                    | environmental, social, economic | dairy  | Yes | Parent et al. (2013)                |
| 27 | DEXiPM                | DEXi Pest Management  | farm                    | environmental, social, economic | arable farming   | Yes | Pelzer et al. (2012)                |
| 28 | DIAGE                 | DIAGnostic Global d'Exploitation  | farm                    | environmental                   | agri-food  | Yes | Vergne (2003)                       |
| 29 | DIALECTE              | DIAGnostic Agri-Environnemental Liant Environnement et Contrat Territorial d'Exploitation | farm                    | environmental                   | agri-food  | Yes | Bochu (2003)                        |
| 30 | DIALOGUE              | Diagnostic Agri-Environmental de l'Exploitation Agricole                                  | farm                    | environmental                   | agri-food  | Yes | Solagro et al. (2002)               |
| 31 | DLG                   | DLG Zertifikat Nachhaltige Landwirtschaft   | farm                    | environmental                   | agri-food  | No  | www.nachhaltige-landwirtschaft.info |
| 32 | DMC                   | Direct Material Consumption   | regional, national      | environmental                   | universal  | Yes | Eurostat (2001)                     |
| 33 | DSI                   | Dairyman Sustainability Index   | farm, regional          | environmental, social, economic | dairy  | Yes | Elsaesser et al. (2015)             |
| 34 | EASI                  | energy/emissions/ecology and agricultural systems integration project                     | farm                    | environmental                   | agri-food  | Yes | Organic Research Centre (2011)      |
| 35 | EF                    | Ecological Footprint  | product, farm, regional | environmental                   | universal  | Yes | Wackernagel et al. (1999)           |
| 36 | EIOVI                 | Environmental Impact of an Organic Viticulture Indicator                                  | farm                    | environmental                   | viticulture  | Yes | Fragoulis et al. (2009)             |

|    |                  |   |                    |  |  |     |                             |
|----|------------------|---|--------------------|--|--|-----|-----------------------------|
| 37 | EMA              | Environmental management for agriculture                    | farm               | environmental                                  | agri-food  | Yes | Lewis and Bardon (1998)     |
| 38 | Emergy           | Emergy analysis   | farm               | environmental                                  | universal  | Yes | Odum (1996)                 |
| 39 | EPI              | Environmental Performance Index                             | national           | environmental                                  | universal  | Yes | United Nations (2007)       |
| 40 | ESI              | Environmental Sustainability Index                          | national           | environmental                                  | universal  | Yes | United Nations (2007)       |
| 41 | EU SDG           | Sustainable Development Goals indicator set                 | national           | environmental, social, economic, institutional | universal  | Yes | European Commission (2005)  |
| 42 | Exergy           | Exergy Analysis   | farm               | environmental                                  | universal  | Yes | Bastianoni et al. (2005)    |
| 43 | EP               | Ecopoints   | farm               | environmental                                  | universal  | No  | www.oekopunkte.at           |
| 44 | FARMSMART        | -   | farm               | economic                                       | agri-food  | Yes | Tzilivakis and Lewis (2004) |
| 45 | FESLM            | Framework for the Evaluation of Sustainable Land Management | regional, national | environmental, social, economic                | agri-food  | Yes | FAO (1993)                  |
| 46 | FieldPrint Calc. | FieldPrint Calculator                                       | farm               | environmental                                  | arable farming                                       | No  | FieldToMarket (2018)        |
| 47 | FSA              | Farm Sustainability Assessment                              | farm               | environmental, social, economic                | agri-food  | Yes | SAI (2019)                  |
| 48 | FSRT             | Farm Sustainability Readiness Tool                          | farm               | environmental, social, economic                | arable farming                                       | Yes | AFSE (2018)                 |
| 49 | Full-Cost Calc.  | Full-Cost Calculation                                       | farm, regional     | economic                                       | permanent crops                                      | Yes | Mouron et al. (2006)        |
| 50 | GA               | Green Accounts for Farms                                    | farm               | environmental                                  | agri-food  | No  | www.landbrugsinfo.dk        |
| 51 | GPI              | Genuine Progress Indicator                                  | national           | economic                                       | universal  | Yes | United Nations (2007)       |
| 52 | Genuine Savings  | -   | national           | economic                                       | universal  | Yes | Pearce and Atkinson (1993)  |
| 53 | GDP              | Gross Domestic Product                                      | national           | economic                                       | universal  | Yes | OECD (2004)                 |
| 54 | HDI              | Human Development Index                                     | national           | social   | universal  | Yes | OECD (2004)                 |
| 55 | HOLOS            | -   | farm               | environmental                                  | livestock production                                 | Yes | Little et al. (2008)        |
| 56 | IDEA             | Indicateur de Durabilité des Exploitations Agricoles        | farm               | environmental, social, economic                | arable farming livestock production, agro-ecosystems | Yes | Vilain (2000)               |
| 57 | IFSC             | Illinois Farm   | farm               | environmental,                                 | agri-food  | No  | www.ideals.illinois.e       |

|    |            |   |                              | economic                           |   |     | du                                 |
|----|------------|---|------------------------------|------------------------------------|---|-----|------------------------------------|
| 58 | IFSM       | Integrated Farm Simulation Model  | farm                         | environmental,<br>economic         | agri-food                                   | Yes | Rotz et al. (2018)                 |
| 59 | IMPACCT    | Integrated management options for agricultural climate change mitigation                                      | farm                         | environmental                      | agri-food                                   | Yes | University of Hertfordshire (2011) |
| 60 | indicIADes | Sustainability Indicators from the Institute de l'Agriculture Durable   | farm                         | environmental,<br>social, economic | agri-food                                   | No  | www.indiciades.fr                  |
| 61 | ISEW       | Index of Sustainable Economic Welfare   | national                     | economic                           | universal                                   | Yes | Daly and Cobb (1989)               |
| 62 | INDIGO     | Indicateurs de Diagnostic Global à la Parcelle  | farm                         | environmental                      | arable farming, viticulture                 | Yes | Bockstaller & Van Der Werf (1997)  |
| 63 | INSPIA     | Initiative for Sustainable Productive Agriculture   | farm                         | environmental,<br>social, economic | annual crops, permanent crops, viticulture  | Yes | Trivino-Tarradas et al. (2019)     |
| 64 | ISAP       | Indicator of Sustainable Agricultural Practice  | farm                         | environmental,<br>social, economic | horticulture                                | Yes | Rigby et al. (2001)                |
| 65 | KSNL       | Kriteriensystem Nachhaltige Landwirtschaft  | farm                         | environmental,<br>social, economic | agri-food                                   | No  | Breitschuh (2009)                  |
| 66 | KUL        | Kriterien Umweltvertraglicher Landbewirtschaftung   | farm                         | environmental                      | arable farming                              | Yes | Reinsch (2001)                     |
| 67 | LCA        | Life Cycle Assessment   | product                      | environmental                      | universal                                   | Yes | Haas et al. (2000)                 |
| 68 | LPI        | Living planet index   | national,<br>global          | environmental                      | universal                                   | Yes | Loh (2002)                         |
| 69 | MASC 2.0   | Multicriteria Assessment of the Sustainability of Cropping Systems  | farm                         | environmental,<br>social, economic | agri-food                                   | Yes | Craheix et al. (2012)              |
| 70 | MESMIS     | Marco para Evaluación de Sistemas de Manejo de Recursos Naturales Incorporando Indicadores de Sustentabilidad | farm, regional               | environmental,<br>social, economic | smallholder, forestry, livestock production | Yes | Masera et al. (2000)               |
| 71 | MINAS      | mineral accounting software tool  | farm                         | environmental                      | universal                                   | Yes | Halberg et al. (2005)              |
| 72 | MMF        | Multiscale Methodological Framework   | farm, regional               | environmental,<br>social, economic | smallholder, peasant farming                | Yes | López-Ridaura et al. (2002)        |
| 73 | MOTIFS     | Monitoring Tool for Integrated Farm Sustainability  | farm                         | environmental,<br>social, economic | dairy                                       | Yes | Meul et al. (2008)                 |
| 74 | OCDE CEI   | Core Set of environmental indicators  | local, regional,<br>national | environmental,<br>socio-economic   | universal                                   | Yes | OECD (1996)                        |
| 75 | Opt'INRA   | -   | farm                         | economic                           | livestock production                        | Yes | Veyssset et al. (2005)             |
| 76 | PalmGHG    | -   | farm                         | environmental                      | palm  | Yes | Chase et al. (2012)                |
| 77 | PG         | Public Goods Tool   | farm                         | environmental,                     | universal                                   | Yes | Gerrard et al. (2012)              |

|    |                          |  |                          |  |                              |     |                                |
|----|--------------------------|--|--------------------------|--|------------------------------|-----|--------------------------------|
|    |                          |  |                          | social, economic                               |                              |     |                                |
| 78 | PLANETE                  | Méthode Pour L'ANalyse Energétique de l'Exploitation   | farm                     | environmental                                  | agri-food                    | Yes | Bochu (2002)                   |
| 79 | RAD                      | Diagnostic de durabilité of Réseau de l'Agriculture Durable                                  | farm                     | environmental, social, economic                | dairy                        | Yes | Le Rohellec and Mouchet (2008) |
| 80 | REPRO                    | Reproduction of Soil Fertility   | farm                     | environmental                                  | agri-food                    | Yes | Christen et al. (2009)         |
| 81 | RISE                     | Response-Inducing Sustainability Evaluation  | farm                     | environmental, social, economic                | agri-food                    | Yes | Häni et al. (2003)             |
| 82 | Roy et al. (2013)        | -  | farm                     | environmental, social, economic                | rice farming                 | Yes | Roy et al. (2013)              |
| 83 | SAEMETH                  | Sustainable Agri-Food Evaluation Methodology   | farm                     | environmental, social, economic                | smallholder, peasant farming | Yes | Peano et al. (2015)            |
| 84 | SAFA                     | Sustainability Assessment of Food and Agriculture Systems                                    | farm, sector             | environmental, social, economic, institutional | agri-food                    | Yes | FAO (2013)                     |
| 85 | SAFE                     | Sustainability Assessment of Farming and the Environment                                     | farm, regional, national | environmental, social, economic                | agri-food                    | Yes | Van Cauwenbergh et al. (2007)  |
| 86 | SAI – SPA                | Farmer Self-Assessment   | farm                     | environmental, social, economic                | agri-food                    | No  | www.standardsmap.org/fsa       |
| 87 | SALCA                    | Swiss Agricultural Life Cycle Assessment   | product, farm, sector    | environmental                                  | agri-food                    | Yes | Nemecek et al. (2011)          |
| 88 | SARN                     | Sostenibilidad de la Agricultura y los Recursos Naturales: Bases para Establecer Indicadores | farm                     | environmental, economic                        | agri-food                    | Yes | Müller (1993)                  |
| 89 | SeeBalance               | -  | product, sector          | environmental, social, economic                | universal                    | Yes | Schmidt et al. (2004)          |
| 90 | SENSE Tool               | -  | farm                     | environmental, social, economic                | agri-food                    | Yes | Ramos et al. (2016)            |
| 91 | SLCA                     | Social Life Cycle Assessment   | product                  | social   | universal                    | Yes | Benoît and Mazijn (2009)       |
| 92 | SMART Farm Tool          | Sustainability Monitoring and Assessment Routine   | farm                     | environmental, social, economic, institutional | agri-food                    | Yes | Schader et al. (2016)          |
| 93 | Socio-economic FP survey | Socio-economic foot-printing survey  | farm, regional           | socio-economic                                 | universal                    | Yes | Lobley et al. (2005)           |

|     |                          |  |                        |  |  |     |  |
|-----|--------------------------|--|------------------------|--|--|-----|--|
| 94  | SOECO                    | Socio-economic indicators for viticulture  | farm                   | social, economic                               | viticulture  | Yes | Keichinger and Thiolllet-Scholtus (2017) |
| 95  | SoilandMoreFlower        | Sustainability Flower Quick Assessment     | farm                   | environmental, social, economic                | agri-food  | No  | www.soilandmorefoundation.org/projects   |
| 96  | SOSTARE                  | -  | farm                   | environmental, economic                        | rice cultivation, arable farming, livestock production           | Yes | Paracchini et al. (2015)                 |
| 97  | SSP                      | Sustainability Solution Space              | regional               | environmental, social, economic                | agri-food  | Yes | Wiek and Binder (2005)                   |
| 98  | SYNOPS                   | -  | farm, regional         | environmental                                  | arable farming   | Yes | Gutsche and Strassemeyer (2007)          |
| 99  | DS                       | Sustainability Dashboard                   | sector, national       | environmental, social, economic, institutional | universal  | Yes | OECD (2004)                              |
| 100 | SVA                      | Sustainable Value Approach                 | farm, sector, regional | environmental, social, economic                | agri-food, oil companies, manufacturing industry, arable farming | Yes | Van Passel et al. (2009)                 |
| 101 | TFI                      | Treatment Frequency Index                  | farm                   | environmental                                  | fruit production, arable farming                                 | Yes | Pujol (2017)                             |
| 102 | UN CSD                   | Core Indicators of Sustainable Development | national, global       | environmental, social, economic, institutional | universal  | Yes | United Nations (1996)                    |
| 103 | UN MDG                   | Millennium Development Goals indicators    | national, global       | environmental, social, economic, institutional | universal  | Yes | United Nations (2007)                    |
| 104 | van Calker et al. (2006) | -  | farm                   | environmental, social, economic                | dairy  | Yes | van Calker et al. (2006)                 |
| 105 | WI                       | Wellbeing index                            | regional, national     | environmental, social                          | universal  | Yes | Prescott-Allen (2001)                    |

Table 1. Full categorization list of all 105 sustainability assessment tools identified.

# THE IMPACT OF MENTORING ON WORK-FAMILY BALANCE AND JOB SATISFACTION: THE MEDIATING ROLE OF WORK DEMANDS AND FLEXIBILITY

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## ABSTRACT

**Purpose**– This study aims to investigate the relationship between work-family balance (WFB), job satisfaction and mentoring in the Greek hotel organizations. In particular, it investigates how mentoring contribute to career and family life outcomes with an additional emphasis on the role of the working environment (work demands, time & schedule flexibility).

**Design/methodology/approach**– The data were collected from 104 hotel managers. Correlation analysis and multiple linear regressions were performed in order to test our framework.

**Findings**– The findings indicate that both job satisfaction and career mentoring have a positive impact on WFB, while socioemotional mentoring has a negative impact. Furthermore, we found that work demands and (time & schedule) flexibility are negatively associated both with WFB and job satisfaction.

**Practical implications**– Understanding the nature of the association between WFB, job satisfaction and mentoring, would enable academics and human resource managers to reflect critically on the effect of mentoring on WFB and job satisfaction in the hotel context, as well as the role of the working environment to achieve sustainable competitive advantage.

**Originality/value** – This is a first study which develops a model to explore the relationship between work-family balance, job satisfaction and mentoring in hotel industry emerging the need of supportive policies to the balance between the two domains of life.

*Keywords* Work-family balance, Job satisfaction, Mentoring receipt, Work demands, Flexibility, Hotel organizations.

## INTRODUCTION

The hotel industry is considered one of the most difficult for balancing work and family domain. This is because of the increasing global competitive environment and the demanding working conditions

(long and unusual working hours, workload, direct contact with customers, etc.). Hotel employees often sacrifice family responsibilities and personal lives to ensure the efficiency and quality of services (Karatepe and Uludag, 2008; Mulvaney *et al.*, 2007).

Many studies give emphasis on workplace issues that are likely to impact on employee attitudes in order to develop strategies to improve both individual and organizational performance (Zopiatis *et al.*, 2014). A part of researchers from different scientific fields examine the conflict of a person's two domains of work and family life as a causal link influenced by several intrinsic and extrinsic factors (French *et al.*, 2018). Moreover, another part of researchers focus on the differences arising from the impact of work flexibility on job satisfaction and the conflict between work and family life (Jang *et al.*, 2011; Scandura and Lankau, 1997).

A crucial question arises from the hotel context is if the existing "family-friendly" related practices are adequate for employees to deal with their daily family responsibilities (Wong and Ko, 2009). The literature suggests that mentoring positively affects the commitment and satisfaction of employees (Allen *et al.*, 2004; Bozionelos *et al.*, 2011; 2014; Janssen *et al.*, 2016). Against this backdrop, this study aims to fill a significant research gap because of the lack of mentoring research in the hotel sector. A key contribution of our study concerns the research of the role of mentoring in hotel managers' work-family balance. The main cause is the need for mentoring programs as a strategy for their professional development and mental health (Rutherford, 1984; Rutherford and Wiegstein, 1985). According to our knowledge this is a first study which develops a model to explore the relationship between work-family balance, job satisfaction and mentoring in the hotel industry, emerging from the need of supportive policies to the balance between the two domains of life.

The following section describes the theoretical background of this study. Afterwards, hypothesis development is provided, a detailed description of the measurement model and the conceptual framework is presented and finally discussion of the results and conclusions are demonstrated.

## LITERATURE REVIEW

### *Work-family balance (WFB)*

In relative literature we meet many definitions and theoretical approaches of WFB. The previous research categorizes these definitions based on two main elements: a) the role enrichment in work / non-work life and b) the minimal conflict (role conflict) between work and non-work roles (Sirgy and Lee, 2018). A definition that is accepted in general refers to employees' perceptions that the domain of personal time and family care and the domain of work reconciled with minimal role conflict and that individuals are equally satisfied with their roles (Allen *et al.*, 2000; Clark, 2000). Other authors define WLB as a high degree of role enrichment with a low degree of role conflict in work and non-work life

domains (Frone, 2003; Greenhaus and Powell, 2006). On the other hand, Greenhaus and Beutell (1985) define work-family conflict (WFC) as the negative interaction between work and family where the individuals take on too many responsibilities at work and at home.

The existing longitudinal studies come in accordance with the vast majority of outcomes of WLB for the employees and organizations (Frone *et al.* 1992; Adams *et al.* 1996; Netemeyer *et al.* 1996), as job satisfaction, family satisfaction (Carlson *et al.*, 2009) organizational performance, affective commitment, absenteeism, turnover intentions, physical health, satisfaction of personal time (Allen *et al.*, 2000; Aryee *et al.*, 2005; Greenhaus *et al.*, 2006; Carlson *et al.*, 2009).

#### *Job satisfaction*

Job satisfaction is defined as the enjoyable emotional state ensuing from appraisal of one's job and job experience (Locke, 1976). Christen *et al.* (2006), in their attempt to make clearer the previous literature gap on job satisfaction definitions, propose a model that includes personal characteristics, perceptions of roles and organizational variables (job and organizational performance). They are based on relationships that empirically demonstrate in meta-analysis Brown and Peterson (1993).

A large group of authors investigate the importance of personal characteristics (Judge *et al.*, 2000; Mount, 2006; Bruk-Lee *et al.*, 2009; Steel *et al.*, 2019), the impact of the working environment (Clark, 1997; Van den Broeck *et al.*, 2008; Dimitriades and Papalexandris, 2011; Raziq and Maulabakhsh, 2015) and the effect of flexible working arrangements on job satisfaction, that can be either positive (Baltes *et al.*, 1999; Droussiotis and Austin, 2007; Kelliher and Anderson, 2010, De Menezes and Kelliher, 2017) or negative (Morganson *et al.*, 2010; Silla and Gamero, 2014).

#### *Mentoring*

According to Kram (1985), mentoring is defined as a developmental relationship between two individuals, the mentor and the protégé, through which the mentor provides career-related (e.g., challenging assignments, exposure and visibility, and coaching) and socioemotional (e.g., friendship, counseling and role modeling) function for the protégé. The career development function allows mentees to improve their working performance, succeed their career goals and encourages them to aggressively take advantage of mentoring (Viator, 2001; Allen *et al.*, 2008). The socioemotional mentoring can improve mentees' work performance and desire to work for their organization (Kram, 1985; Allen *et al.*, 2008).

Empirical estimations by researchers show that mentoring has a direct positive effect on job satisfaction and job performance (Lankau and Scandura, 2002; Pan *et al.*, 2011; Van Vianen *et al.* 2018), career development (Ragins *et al.*, 2000; Allen *et al.*, 2004; Bozionelos *et al.*, 2011), organization commitment (Eby *et al.*, 2013), turn over intentions (Payne and Huffman, 2005; Van Vianen *et al.*, 2018) and other positive physical/psychological consequences (Eby *et al.* 2008; Bozionelos *et al.*, 2014).

## HYPOTHESES DEVELOPMENT

Empirical evidence shows that WFB increases job satisfaction (Carlson *et al.*, 2011). Haar *et al.* (2014) in a cross-country survey of seven different cultures showed that WFB is positively related to job satisfaction and life satisfaction. In line with these results, Mulvaney *et al.* (2007) proposed a model of work-family life for hotel managers where show the positive association between WFB and job satisfaction. Moreover, several studies in hospitality industry show as well that conflict between work and family domain negatively associated with job satisfaction (Namasivayam and Zhao, 2007; Karatepe and Bekteshi, 2008; Zhao and Ghiselli 2011).

Furthermore, a recent study by Van Vianen *et al.* (2018) shows that employees who received more career mentoring were more satisfied with their job and had a stronger career motivation. This finding is supported by several previous studies that indicated a positive association between mentoring and job satisfaction (Kram, 1985; Scandura, 1992; Allen *et al.*, 2004; Lankau *et al.*, 2006). Lankau and Scandura (2002) advocate that only career mentoring bring outcomes to the protégés. Kammeyer-Mueller and Judge (2008) found that career mentoring is positively related to job satisfaction, whereas socioemotional mentoring is negatively related to job satisfaction. On the contrary, Payne and Huffman (2005) indicated that socioemotional mentoring encourages employees to be more satisfied with their jobs. More specifically, in hotel industry researchers concluded that all mentoring functions had a significant and positive effect on job satisfaction (Kim and Hwang, 2015). However, none research highlights the interaction effects between WFB, job satisfaction and mentoring functions. Therefore, we estimate to extent previous literature by examining the above relationship in hotel context.

Thus, we propose the following hypotheses:

**H1a.** Work – family balance (WFB) is positively related to job satisfaction and career mentoring.

**H1b.** Work – family balance (WFB) is positively related to job satisfaction and negatively related to socioemotional mentoring.

According to Spector *et al.* (2007) working hours and workload are used as the main indicators of *work demands*. The authors suggest that individuals with greater workloads are likely to expend more effort, which should increase strain-based work-family conflict. Several studies show that long working hours and heavy workloads are antecedents of WFC (Greenhaus and Beutell, 1985; Frone, 2003). Furthermore, it is highly plausible that there is a positive association between work demands, WFC (Frone *et al.*, 1997; Byron, 2005) and job dissatisfaction (Allen *et al.*, 2000; Aryee *et al.*, 2005; Spector *et al.*, 2007).

Additionally, a small part of researchers focus on the positive effect of *time flexibility* on job satisfaction (Scandura and Lankau, 1997; Costa *et al.*, 2006; Kelliher and Anderson 2008; Taqatqa and Aljbour, 2017) and work–life balance (Jang, 2009; McNall *et al.*, 2009; Galea, *et al.*, 2014). Moreover, *schedule flexibility* is proved that associated with increased job satisfaction and reduced WFC (Jang, 2009; Carlson *et al.*, 2010; Michel *et al.*, 2015). Especially in hotel industry, Karatepe and Uludag (2008) point out that long work hours, work on weekends, irregular and inflexible work schedules are antecedents of work–family conflict.

Taking into consideration both the empirical and theoretical literature, we propose the following hypotheses

**H2.** Work-family balance (WFB) is negatively related to work demands and positively related to time and schedule flexibility.

**H3.** Job satisfaction is negatively related to work demands and positively related to time and schedule flexibility.

## METHODOLOGY

### *Sample and procedure*

Data were collected from 104 managers that work on different levels of management and departments of four and five star hotel organizations in Greece. We addressed to managers because they tend to work long hours and have high levels of responsibility and demands at work (Brett and Stroh, 2003). The questionnaires with cover letters were delivered to general managers in these hotels emphasizing that participation was anonymous and voluntary. From the 120 returned responses 16 were not usable because of significant missing information.

The participants consisted of 54% males and 46% females. The age of respondents was between 34-38 years on average. Around half of them were unmarried (56.1%), while 43.9% were married. Most managers had no children (65%) and elderly protected people (83%). They oversee a large range of tasks as Assistant HR Manager, Sales and marketing Manager, Sales/Reservations Manager, Marketing/Public Relations Manager, Assistant Operations Manager, Reception Manager.

### *Measurement*

All the measures were originally developed in English. Therefore, we translated all measurement from English to Greek. All items were measured using a five-point Likert scale ranging from “1 = strongly disagree” to “5 = strongly agree”.

*Work-family balance (WFB).* Work-family balance was measured by a six-item scale development by Carlson *et al.*, (2009). Both the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of

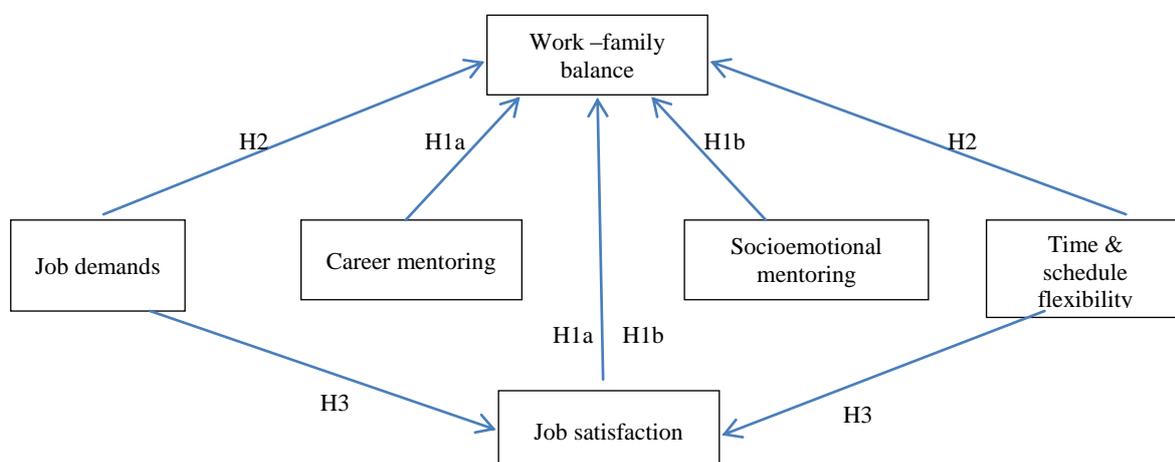
Sphericity ( $\chi^2$ ) were satisfied in terms of significance (KMO=0.903,  $\chi^2=734.726^{***}$ ). They explain the 84.254% of the variance. According to Cronbach's alpha coefficient, the scales used to measure work-family balance acquired internal consistency (0.962).

*Job satisfaction.* General job satisfaction and facets of job satisfaction were measured using 19 items of the Job Diagnostic Survey developed by Hackman and Oldman (1980). Both the Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity ( $\chi^2$ ) were satisfied in terms of significance (KMO=0.927,  $\chi^2=2567.233^{***}$ ). The two-factor structure accounted for 78.880% of the variance. The internal consistency estimates (Cronbach's  $\alpha$ ) for these two domains were 0.859 and 0.983 which confirm good internal consistency of the items within each domain.

*Mentoring receipt.* Mentoring receipt was a measurement with eighteen items on a five-point response (1: not at all, to 5: to a great extent) from Dreher and Ash (1990). The Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity ( $\chi^2$ ) both showed satisfactory levels (KMO=0.931,  $\chi^2=2558.859^{***}$ ). The two-factor structure (career-related and socioemotional mentoring) accounted for 78.977% of the variance. The internal consistency estimates (Cronbach's  $\alpha$ ) for these two domains were 0.921 and 0.976 which confirm good internal consistency of the items within each domain.

*Work demands.* Perceived workload was assessed with Spector and Jex's (1998) quantitative workload inventory (QWI), a 5-item measure of perceived quantitative workload. "The Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity ( $\chi^2$ ) both showed satisfactory levels (KMO=0.776,  $\chi^2=337.758^{***}$ ). They explain the 69.604% of the variance. According to Cronbach's alpha coefficient, the scale had internal consistency (0.881).

*Time and schedule flexibility.* In line with other researchers (Thomas and Ganster, 1995; McNall *et al.*, 2009), we measure access to benefits rather than usage because we interest in the availability of work-family programs as a symbol of organizational concern for work and family issues. Specifically, participants were asked, "Do you have flexibility on your working time and schedule?" We assign 1 to participants who answered *yes* and 0 to participants who answered *no*.



**Figure 1. CONCEPTUAL MODEL****RESULTS***Descriptive statistics*

**Table 1** shows the means, standard deviations and correlation coefficients among the study variables. Work-family balance is positively related to overall job satisfaction ( $r=0,819$ ,  $p<0.01$ ), career mentoring ( $r=0,677$ ,  $p<0.01$ ) and socioemotional mentoring ( $r =0,400$ ,  $p <0.01$ ). In addition, work-family balance and job satisfaction are negatively related to work demands ( $r=-0,474$ ,  $p <0.01$ ,  $r =-523$ ,  $p<0.01$ ). However, both are negatively related to (time & schedule) flexibility ( $r=-0,280$ ,  $p<0.01$ ,  $r =-0,259$ ,  $p <0.01$ ).

| Variables  | SD       | Mean    |         |         |       |         |        |   |
|--|----------|---------|---------|---------|-------|---------|--------|---|
|  |          | 1       | 2       | 3       | 4     | 5       | 6      | 7 |
| (1)work-family balance                               | 3,1,26   | 3,481   | ,819**  |         |       |         |        |   |
| (2)general job satisfaction                          | 3,901,52 | ,819**  | 1       |         |       |         |        |   |
| (3)facets of job satisfaction                        | 3,111,46 | -,033   | ,000    | 1       |       |         |        |   |
| (4)career mentoring                                  | 3.401,37 | ,677**  | ,783**  | ,257**  | 1     |         |        |   |
| (5)socioemotionalmentoring                           | 3,051,45 | ,400**  | ,529**  | -,253** | ,000  | 1       |        |   |
| (6)work demands                                      | 3,83     | 1,23    | -,474** | -,523** | -,113 | -,472** | -,206* | 1 |
| (7)time and schedule flexibility                     | 1,660,47 | -,280** | -,259** | ,292**  | -,115 | -,236*  | ,033   | 1 |
| Notes: N = 104; *p < 0.05<br>**p < 0.01; two-tailed. |          |         |         |         |       |         |        |   |

**Table1. MEANS, STANDART DEVIATIONS AND CORRELATIONS***Hypothesis testing*

Initially we test the relationship between WFB, job satisfaction and career mentoring and WFB, job satisfaction and socioemotional mentoring. We use the multiple linear regression model where the parameter estimations are obtained by the least squares method. In contrast to theory, career mentoring and socioemotional mentoring are not statistically significant. For this reason, we test of hypotheses of linear model. First, no problem of multicollinearity exists between the independent variables because the variance inflation factors are lower than 10 ( $VIF=2.5853$ ,  $VIF=1.389440$ ). Additionally,  $p$  value of Breusch-Godfrey Test is 0.9863 and 0.9792 respectively. Therefore, we do not reject the null hypothesis of no correlation of residuals. Moreover, there is no problem of heteroskedasticity, because Heteroskedasticity Test shows higher  $p$  value (0.5458, 0.5220). Thus, we do

not reject the null hypothesis of homoscedasticity. The Jarque-Bera Test shows high price ( $\beta=25.76858$ ,  $p=0.000003$ ,  $\beta=26.99575$ ,  $p=0.000001$ ). Thus, we reject the null hypothesis of normality, which means that the residuals do not follow normal distribution. In order to solve this problem we adopt the recursive method of bootstrap. This is proper for small sample size and we use one thousand repetitions as recommending by literature (Efron and Tibshirani, 1993). **Table 2** exhibits the results. In particular, the first bootstrapping procedure indicates the significant positive association between WFB, job satisfaction ( $\beta=0.498$ ,  $p<0.001$ ) and career mentoring ( $\beta=0.298$ ,  $p<0.01$ ). Hence, we can accept *H1a*. The second bootstrapping procedure shows that WFB is significantly positively related to job satisfaction ( $\beta=0.882$ ,  $p<0.001$ ) and negatively related to socioemotional mentoring ( $\beta=0.136$ ,  $p<0.01$ ). Therefore, we can accept *H1b*.

| Dependent Variable         | Independent Variables    | Least Squares          | Bootstrapping |
|----------------------------|--------------------------|------------------------|---------------|
| WFB                        | Job Satisfaction         | 0.745***               | 0.498***      |
|                            | Career Mentoring         | 0.093                  | 0.298**       |
|                            | Constant                 | -5.61*10 <sup>-7</sup> | 0.151**       |
| Adjusted R-squared         |                          | 0.667                  | 0.542         |
| Model 2                    | Job Satisfaction         | 0.843***               | 0.882***      |
|                            | Socioemotional Mentoring | -0.046                 | -0.136**      |
|                            | Constant                 | -5.71*10 <sup>-7</sup> | -0.039        |
| Adjusted R-squared         |                          | 0.665                  | 0.699         |
| Note: ** <0.01, ***p<0.001 |                          |                        |               |

**Table 2. BOOTSTRAPPING RESULTS**

As well as, multiple hierarchical regressions are used to test H2 and H3. **Table 3** presents the results. Our findings indicate that WFB is significant negatively related with work demands ( $\beta=-0.465$ ,  $p<0.001$ ) and time & schedule flexibility ( $\beta=-0.558$ ,  $p<0.001$ ). Therefore, the expectation on the nature of the relationship between WFB, work demands and time & schedule flexibility proposed in *H2* is only partially supported. Similarly, *H3* predicted that job satisfaction has a negative association with work demands and positive association with time & schedule flexibility. In model, this prediction received partly support ( $\beta=-0.516$ ,  $p<0.001$ ,  $\beta=-0.510$ ,  $p<0.001$ ) in line with expectations; thus *H3* is partially supported.

| Dependent Variable | Independent Variables       | Unstandardised B | t-Value   |
|--------------------|-----------------------------|------------------|-----------|
| Model 1            | Work demands                | -0.465           | -5.559*** |
|                    | Time & schedule flexibility | -0.558           | -3.169*** |
|                    | Constant                    | 0.928            | 3.048***  |
| Adjusted R-squared | 0.280                       |                  |           |

|                    |                             |        |           |
|--------------------|-----------------------------|--------|-----------|
| Model 2            | Work demands                | -0.516 | -6.339*** |
| Job satisfaction   | Time & schedule flexibility | -0.510 | -2.978*** |
|                    | Constant                    | 0.849  | 2.865***  |
| Adjusted R-squared | 0.319                       |        |           |
| Note: ***p<0.001   |                             |        |           |

**Table3. MULTIPLE LINEAR REGRESSIONS**

## DISCUSSION

Our study contributes to the understanding of determinants of work-family balance in hotel industry. The results indicate that both job satisfaction and career mentoring have a positive impact on WFB, while socioemotional mentoring has a negative impact. In addition, we found that work demands and (time & schedule) flexibility associated negatively both with WFB and job satisfaction.

The results raise vital questions for WFB research in hospitality context. First, the findings are consistent with past studies that examine the positive association between WFB, job satisfaction (Mulvaney *et al.*, 2007; Carlson *et al.*, 2011) and career mentoring (Kram, 1985; Scandura, 1992; Allen *et al.*, 2004; Lankau *et al.*, 2006; Kammeyer-Mueller and Judge, 2008). Career mentoring is more related to outcomes for protégés (Kram, 1985; Lankau and Scandura, 2002; Allen *et al.*, 2004; Bozionelos *et al.*, 2011). Probably, this is due to the difficulty of career than socioemotional mentoring providing which reflect greater organizational commitment (Bozionelos *et al.*, 2011). Therefore, WFB is more likely to increase when increase job satisfaction and career mentoring. The interpretation is that protégés are more satisfied with their working environment, resulting in work domain interfere positively with family domain.

Second, our findings also determined the importance of work demands on WFB and job satisfaction. The theories proclaim that work demands have a positive impact on WFC and job dissatisfaction (Frone *et al.*, 1997; Allen *et al.*, 2000; Aryee *et al.*, 2005; Byron, 2005; Spector *et al.*, 2007). Additionally, our research measured the WFB and we found that work demands (workload) were predominant than (time & schedule) flexibility to increase WFB. Future research can build upon these results by investigating the above variables in association with mentoring functions.

Third, interestingly, our results are inconsistent with prior work linking the positive impact of (time & schedule) flexibility on WFB (Karatepe and Uludag, 2008); our findings reveal the negative impact of flexibility on WFB. On the same wavelength, Mesmer-Magnus and Viswesvaran, (2006) suggest that if employees are not using the benefits of flexibility, these are not capable to reduce WFC. Indeed, hotel managers are more likely to work strongly and not use the time and schedule flexibility because of the customer's pressure with face to face / voice to voice contact and pressure working conditions

(irregular hours, working on weekends). Furthermore, we found that flexibility has a negative impact on job satisfaction. Regarding De Menezes and Kelliher, (2017) job satisfaction may be mitigated by the potential insecurity of an informal flexibility arrangement which is resulted from negotiation directly between the employee and their line manager. Future research should verify our findings in different industry contexts.

This study aids to knowledge and understanding of the determinants of WFB and job satisfaction in the hotel industry, highlighting the importance of career mentoring. We focus on the side of hotel managers because their responsibilities are more likely to prevent balancing two domain of life. It is claimed that hotel managers need mentoring programs for their professional development and mental health (Rutherford, 1984; Rutherford and Wiegenstein, 1985). Other studies could extent research by examining the relationship between WFB, job satisfaction and mentoring using data from dyads of mentors-protégés for a more robust investigation to establish an unequivocal conclusion.

## CONCLUSIONS-IMPLICATIONS

In summary this framework could turn the attention of hotel organizations to effective human resource management practices such as mentoring programs and formal flexible arrangements. Regarding the working environment, organizations should provide more formal flexible arrangements (e.g. telecommuting, childcare, elder care assistance) to increase the performance and profitability. Future research could examine which specific work-family support policies and practices can most benefit employees and organizations.

This is a first step for examining the effect of mentoring on hotel managers' WFB and job satisfaction. In the case of Greece, hotel industry is the most vital part of tourism and its significant growth has positively affected the main tourist data and performance indicators in the country. We conclude that HR management has a foundation upon which to begin creating strategies that contribute to organization goals by helping employees to achieve WFB (Grzywacz and Carlson, 2007).

Moreover, additionally research is needed to understand more factors affecting work-family balance, job satisfaction and mentoring in hotel context, such as the national economic environment and the crisis of covid-19, which is expected to cause negative consequences in the hospitality industry.

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## TAX AGGRESSIVENESS AND FIRM VALUE: IS THE COMPOSITION OF CORPORATE BOARD DECISIVE?

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### ABSTRACT

This paper investigates the moderating role of corporate board on the relationship between the adoption of a tax strategy and firm value. Using a multivariate regression analysis, this study shows interesting empirical results. Firstly, this paper highlights that the independent directors and gender diversity within corporate board do not influence the relationship between tax aggressiveness and firm value. Conversely, the size of a corporate board has a negative impact on the relationship between the adoption of a tax strategy and firm value. Therefore, a corporate board made up of few directors represents a key corporate governance mechanism suitable to protect shareholder value from the risks associated with the adoption of a tax planning by a firm.

*Keywords: Corporate Board, Corporate Governance, Firm Value, Tax Planning*

### INTRODUCTION

Tax planning or Tax aggressiveness represents an emerging field of research, not only in accounting and legal matters, but also in other different fields of literature. This circumstance is due, on one hand, to the linkage between tax issues and the concept of corporate social responsibility and on the other hand, to the recent global economic financial crisis which has weakened the public finance structures of several countries.

Tax planning is a managerial practice implemented by companies for the exclusive purpose of increasing their net profit through reduction in their tax burden in compliance with the countries' legislation (Dowling et al., 2014). Therefore, it represents one of the various strategies preferred by shareholders, which is adopted by a firm (Huseynov et al., 2012). However, tax planning is a risky strategy since it involves various consequences in the long term for a company. A firm that exercises a high level of tax aggressiveness may indeed face litigation with tax authorities, leading to the undesired consequence of bearing further monetary and non-monetary costs deriving from the reputational damage (Hanlon et al., 2009). The Agency Theory states that the negative consequences deriving from the adoption of a tax planning could damage shareholder value whether costs in long term are greater than benefits in short term (Desai and Dharmapala, 2006). From this perspective, because of the separation of ownership and management within a large company, there exists a

divergence of interests among the shareholders and managers. Specifically, managers could engage in a risky level of tax aggressiveness, increasing their gains in short term at the expense of decreasing the shareholders' value due to the emergence of the negative consequences of a tax planning adopted (Vacca et al., 2020).

Part of literature (Armstrong et al., 2015; Slemrod, 2004) argues that there exists a certain level of tax aggressiveness appropriate to enhance firm value, without incurring the negative consequences resulting due to the adoption of a tax strategy.

According to the Agency Theory, corporate board constitutes the connection between the objectives of the owners/shareholders and the behaviors of managers, thereby preventing the occurrence of conflicts of interests within a company (Jensen e Meckling, 1979). Indeed, part of literature (McClure, 2018; Wahab et al., 2017) attributes a pivotal role to the corporate board in defining the level of tax aggressiveness of a firm, as this board is responsible for planning the corporate strategy and for monitoring its effectiveness to protect shareholder value (Rose et al., 2007).

Based on these arguments, the aim of this research is to study the moderating role of corporate board on the relationship between the adoption of a tax planning and firm value. Specifically, this paper discusses the influence of specific characteristics of corporate board such as size, gender diversity and independence on the effectiveness of a tax strategy adopted by a firm to increase in firm value.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

In an increasingly competitive and globalized world, large companies are called upon to ensure the distribution of high dividends to their investors. For this purpose, firms adopt tax planning strategies to reach competitive advantage against competitors and consequently to increase shareholder wealth (Huseynov et al., 2012). Therefore, tax management constitutes a strategic behavior for a company in order to minimize the cost of tax liabilities and improve the distribution of earnings per share (EPS) to investors.

However, the adoption of tax strategy could also entail various risks for a company, which are represented by compliance costs with tax administration and the reputational costs (Hanlon et al., 2009), as despite tax planning does not infringe the law, it is negatively viewed by the public opinion, since it is contrary to the interests of the community in which a company operates (Landry et al., 2013). Furthermore, adoption of tax planning by a firm entails negative consequences for the public finance, as the State has less availability of resources to provide public services to the community (Freedman, 2003). This has a consequent increase in political and social pressure on business decisions, which can lead to consumers boycotting the goods produced or services offered by an organization (Whait et al., 2018). Additionally, a tax strategy could become a cause of conflict of

interests between shareholders and managers. Indeed, this strategy represents an important tool for managers to increase their gains in short term by engaging in risky levels of tax aggressiveness at the expense of reducing shareholder value in the long term due to incurrence of the costs associated with it (Desai and Dharmapala, 2006).

A large part of the literature studies the effects of the adoption of a tax planning strategy on firm value, showing contradictory empirical results.

Some authors (Desai and Dharmapala, 2009; Kiesewetter et al. 2017) do not find any relationship between tax aggressiveness and firm value. In contrast, some researchers (Assidi et al., 2016; Tang et al. 2019) argue that tax aggressiveness is positively associated with increased firm value. Another part of the literature (Chen et al., 2014; Christina, 2019) shows a negative relationship between the adoption of a corporate tax strategy and firm value.

The above mentioned negative empirical results suggest that the potential cost associated with the engagement in a high level of tax aggressiveness did not allow a firm to maximize shareholder value, despite the fact that a decrease in the tax burden increases the net profit for a company with a consequent increase in the shareholder wealth.

Based on this, it can be stated that the corporate board, which is responsible for planning the corporate strategy (Rose et al., 2007), plays a pivotal role in defining a suitable level of tax aggressiveness of a firm to protect shareholder value, thereby preventing the risks associated with any such strategy. In fact, this body considers taxes as one of the many factors that a company must manage, as it can have significant influence on its decision-making process (KPMG, 2005).

Part of literature shows that some specific characteristics of the structure of a corporate board affect the attitude of a firm towards committing to high levels of tax aggressiveness. Some authors (Minnik and Noga, 2010; Wahab et al., 2017) argue that a corporate board comprising of several directors negatively influence the level of tax aggressiveness of a firm. In the same way, another part of literature (Richardson et al., 2016; Chen et al., 2019) analyzes the impact of gender diversity in corporate board on the orientation of a firm towards adopting a tax strategy, showing that female directors negatively influence the level of tax aggressiveness of a firm.

Conversely, some authors (Minnik and Noga, 2010; McClure et al., 2018) show a positive relationship between higher levels of board independence and the adoption of a tax strategy by a firm, claiming that the independent directors possess good expertise in the matters related to tax.

Based on what was discussed, it is expected that specific corporate board characteristics such as size, independent directors and gender diversity should moderate the relationship between the adoption of a tax planning and firm value. Therefore, the following research hypothesis have been developed.

H1: *The relationship between the adoption of a tax planning and firm value is negatively moderated by*

*corporate board's size.*

H2: *The relationship between the adoption of a tax planning and firm value is negatively moderated by gender diversity on corporate board.*

H3: *The relationship between the adoption of a tax planning and firm value is positively moderated by corporate board's independence.*

## **RESEARCH METHODOLOGY**

The analysis was conducted on a sample of 168 non-financial Italian listed firms on Milano Stock Exchange extracted from the "AIDA Bureau Van Dijk" database. The analysis was carried out by using two consequent research methodologies.

Firstly, a document analysis was performed through the evaluation of annual reports of Italian listed firms to collect the data of the composition of a corporate board.

And finally, to study the moderating role of the composition of corporate board on the relationship between tax aggressiveness and firm value, panel data analysis with fixed effects was performed (Stock and Watson, 2015) on a time interval of seven years (2011-2018) with the determination of 1176 observations.

## **REGRESSION MODELS AND VARIABLES**

*TBQ* measures firm value. It represents the dependent variable of this research calculated by market capitalization plus book value of debts divided by the total asset (Pucheta-Martinez et al., 2018).

The control variables of this study are broadly used in previous studies on corporate governance, tax planning and firm value.

*FSIZ* measures firm size by taking the natural logarithm of the total assets (Pucheta-Martinez et al., 2018).

*LEV* represents the leverage of a firm, and it is represented by the ratio between the book value of debts and equity (Li et al., 2016).

*R&D* represents firm's research and development costs. It is computed by the total of research and development cost divided by total assets (Gupta et al., 2017).

*BS* measures corporate board size. It is computed by taking the natural logarithm of the number of directors that make up the corporate board.

*GEN* measures the percentage of female directors on corporate board. It is calculated as the number of women directors on the board of directors divided by the total number of directors that make up the corporate board.

*BIND* represents the percentage of independent directors on corporate board; it is computed as the ratio between the number of independent directors on corporate board and the size of corporate board.

To measure corporate tax aggressiveness, this research used two different variables, which are *CTP<sub>1</sub>* and *CTP<sub>2</sub>*.

*CTP<sub>1</sub>* represents the index "Effective Tax Rate" (*ETR*) calculated by the ratio between total tax expense and accounting income before tax (Kiesewetter et al., 2017).

*CTP<sub>2</sub>* constitutes the index "Cash Effective Tax Rate" (*CETR*) calculated by the ratio between current-year tax expense and the accounting income before tax (Armstrong, 2015).

*ETR* and *CETR* indexes are inverse measures of tax aggressiveness, therefore lower levels of them could mean a likely adoption of a tax strategy by a firm (Armstrong et al., 2015).

To detect moderating role of the characteristics of the composition of a corporate board on the relationship between tax aggressiveness and firm value, this study used the following independent variables.

*BS × CTP<sub>1</sub>/CTP<sub>2</sub>* measures the interaction effect between corporate board size and the adoption of a tax planning, computed by multiplying the variable *BS* with *CTP<sub>1</sub>* or *CTP<sub>2</sub>*.

*GEN × CTP<sub>1</sub>/CTP<sub>2</sub>* measures the interaction effect between the percentage of gender diversity on corporate board and the adoption of a tax planning, measured by multiplying the variable *GEN* with *CTP<sub>1</sub>* or *CTP<sub>2</sub>*.

*BIND × CTP<sub>1</sub>/CTP<sub>2</sub>* measures the interaction effect between external auditor BIG 4 and tax aggressiveness, measured by multiplying the variable *BIG4* with *CTP<sub>1</sub>* or *CTP<sub>2</sub>*.

To achieve the objectives of this research, the following multivariate regression models were developed for each variable used to measure corporate tax aggressiveness.

*Model 1.*

$$TBQ_{it} = \alpha_{it} + \beta_{1t}FSIZ + \beta_{2t}LV + \beta_{3t}RD + \beta_{4t}CTP_1 + \beta_{5t}BS + \beta_{6t}GEN + \beta_{7t}BIND \\ + \beta_{8t}BS \times CTP_1 + \beta_{9t}GEN \times CTP_1 + \beta_{10t}BIND \times CTP_1$$

*Model 2.*

$$TBQ_{it} = \alpha_{it} + \beta_{1t}FSIZ + \beta_{2t}LV + \beta_{3t}RD + \beta_{4t}CTP_2 + \beta_{5t}BS + \beta_{6t}GEN + \beta_{7t}BIND \\ + \beta_{8t}BS \times CTP_2 + \beta_{9t}GEN \times CTP_2 + \beta_{10t}BIND \times CTP_2$$

| Code | Variable                       | Value |
|------|--------------------------------|-------|
| TBQ  | Firm Value                     | Log   |
| FSIZ | Total asset                    | Log   |
| LV   | Leverage                       | %     |
| RD   | Research and development costs | %     |

|      |                                     |     |
|------|-------------------------------------|-----|
| CTP1 | Effective Tax Rate                  | %   |
| CTP2 | Cash Effective Tax Rate             | %   |
| BS   | Corporate board's size              | Log |
| GEN  | Percentage of female directors      | %   |
| BIND | Percentage of independent directors | %   |

Table 1. Description of the variables

## REGRESSION RESULTS

The results of the multivariate regression analysis reported in Table 2 show interesting empirical results.

First, the study highlights that the size of corporate board ( $BS \times CTP_1/CTP_2$ ) has a negative effect on the relationship between the adoption of a tax planning strategy and firm value. Therefore, the hypothesis 1 is accepted. This data is consistent with the previous studies of Minnik and Noga (2010) and Wahab et al. (2017) that have showed a negative influence deriving by the size of the board of directors on the orientation by a company of adopting a tax planning strategy. This suggests that corporate boards made up of several directors could not represent a critical factor of the governance structure of a firm in preventing the costs associated with the adoption of a tax planning strategy.

Secondly, the results of the analysis show that the level of gender diversity ( $GEN \times CTP_1/CTP_2$ ) on corporate board does not influence the relationship between tax aggressiveness and firm value, thus the hypothesis 2 is rejected.

Finally, in the same way, high level of independence of corporate board ( $BIND \times CTP_1/CTP_2$ ) does not affect the relationship between the adoption of a tax planning and firm value, therefore the hypothesis 3 is rejected.

These results provide evidence that gender diversity and board independence may not constitute a pivotal corporate governance mechanism in preventing the costs associated with the adoption of a tax planning strategy.

|       | Model 1. |      | Model 2. |         |     |
|-------|----------|------|----------|---------|-----|
|       | TBQ      |      | TBQ      |         |     |
|       | Coeff.   | Sig. | Coeff.   | Sig.    |     |
| Const | -0.1489  |      | const    | -0.1795 |     |
| FSIZ  | -0.0005  |      | FSIZ     | -0.0011 |     |
| LV    | -0.0079  |      | LV       | -0.0089 |     |
| RD    | -0.0357  |      | RD       | -0.0382 |     |
| CTP1  | -0.0138  | **   | CTP2     | -0.0186 | *** |
| BS    | -0.0556  |      | BS       | -0.0146 |     |

|              |               |     |              |               |     |
|--------------|---------------|-----|--------------|---------------|-----|
| GEN          | 0.0031        | **  | GEN          | 0.0036        | **  |
| BIND         | 0.0061        | *** | BIND         | 0.0056        | *** |
| BS X CTP1    | 0.0165        | **  | BS X CTP2    | 0.0219        | *** |
| GEN X CTP1   | 6.6676        |     | GEN X CTP2   | 9.1498        |     |
| BIND X CTP1  | -0.0001       |     | BIND X CTP2  | -7.7095       |     |
| R2           | 0.6887        |     | R2           | 0.6892        |     |
| Panel        | Fixed Effects |     | Panel        | Fixed Effects |     |
| Observations | 1176          |     | Observations | 1176          |     |

\*\* :  $p < 0.05$ ; \*\*\* :  $p < 0.01$ .

Table 2. *Regression models' results*

## CONCLUSIONS AND MANAGERIAL IMPLICATIONS

This study provides theoretical contributions, enriching the existing literature on the relationship between tax aggressiveness and firm value, while improving the understanding of the moderating role of board of directors' characteristics on the mentioned relationship. Pertaining to the results, this work notes that corporate board size negatively influences the relationship between tax aggressiveness and firm value. Conversely, this study does not note an impact by board's independence or gender diversity on such relationship analyzed.

In addition to the theoretical contributions, this work also carries practical implications.

First, this study helps investors, entrepreneurs, and the general community to understand the role of each player who is responsible for the corporate decision-making process on the effectiveness of a tax planning adopted by the firm. Further, this study helps in understanding the role of such corporate governance mechanisms in protecting shareholder value from the potential risks associated with engagement in a high level of tax aggressiveness by a firm. Specifically, companies with a board made up of few directors are able of planning a tax planning strategy suitable to increase their market value, preventing the potential costs derived by the adoption of such practice.

However, this study carries some limitations. Since the population is only made up of non-financial listed firms on the Milano Stock Exchange, future research could extend the population of this study, taking into account both non-financial firms and financial firms. Additionally, this empirical model could also be tested on other countries' stock exchanges characterized by different legislations and cultures; for instance, exploring the different governance mechanisms in the European Union.

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# THE INFLUENCE OF CLIMATE CHANGE ON SUSTAINABLE TOURISM: AN ENVIRONMENTAL THREAT

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## ABSTRACT

Irrational exploitation has devastated the ecotourism resources. Therefore, forming the legal system of ecotourism as soon as possible and having laws to abide by can ensure the sustainable development of ecotourism in our country. The goal is to bring to surface the course of action taken by local agents about socio-environmental aspects. What is effective at stake is the transformation of reality upon the opening of channels towards the participation of civil society in the decision-making process. In this paper, we attempt to explore the idea of sustainability within our relationship to the natural environment. Sustainability assumes that natural and human technological resources can be utilized while maintaining the environment. Sustainability must also be understood within the context of ecological, cultural, social, economic and ethical realms. In putting this in perspective, the idea of sustainability becomes more concrete. Amongst a range of environmental constraints that are of necessity playing an increasing role in social development planning, climate change represents the most urgent and far-reaching challenge of our time. This paper is theoretical, with a keen eye on the practical implications of ideas concerning sustainable tourism and enhancing our natural environment

*Keywords: Climate change, economic, environment, human rights, local management, sustainability, tourism, transformation and threat.*

## INTRODUCTION

Many countries in different parts of the African continent are facing urgent environmental threats to their economies due to the phenomenon of climate change and the effect of the tourism industry. South Africa, despite its relative wealth and greater endowment of financial resources and infrastructure, also faces similar problems and threats to its economy. The research approach adopted here was therefore premised on the view that tourist destinations are key sites to analyse the country's capacity to respond, adapt to, and mitigate the effects of climate change and related environmental problems in an integrated manner that is consistent with the other priorities to deliver basic services can be assessed. Key to these issues is analysing tourist destination and policy choices within the framework of sustainability.

When discussing sustainability, one must first understand that its main assumptions are socially supported. Sustainability first assumes that human needs must be met indefinitely without jeopardizing organisms within the environment. Secondly, we must ensure and control of community while maintaining the environment that sustains them.

The issues of sustainability often lie in the competition between economic sectors for the scarce resources of land, water, energy, waste assimilation capacity and human capital. The idea of keeping an overall world view with sustainability in mind, tourism attraction could be redesigned to ultimately be profitable for both the tourists and the environment. Ecological and economic interest should then not be viewed in conflict, particularly at the design level, but that economic activities should be (and indeed must be) profitable while maintaining a sustainable society. Another over all theme to be discussed should be designed to be part of a recycled future and should be returned either as natural or technological nutrients with little or no disposable contents. Sustainability functions must not be developed in a clear linear fashion but more with an overarching consciousness, attempting to see how all the components fit together.

Tourism is currently considered among the economic sectors least prepared for the risks and opportunities posed by climate change and is only now developing the capacity to advance knowledge necessary to inform business, communities and government about the issues and potential ways forward. Sustainable tourism is that which is developed and maintained in a form such that is viable over an indefinite period of time and does not degrade or alter the physical and human environment to an extent that it prohibits the successful development and wellbeing of other activities and processes (Jafari, 2000).

The debate linking tourism with global warming is therefore very polemical: neither camp engaged in the debate sees the other side. Sustainable tourism could be a panacea to mitigate the negative impact of tourism on global warming and by some others as a ploy planted by post-industrial society to divert attention from the core issues. Climate change tends to pose more economic, environmental and cultural challenges to tourism management.

## **METHODOLOGY AND SCOPE**

In this article, various dilemmas, which effect the realisation of sustainable tourism, are outlined. The purpose of this article is to examine our relationship to the natural environment: sustainable tourism. Second, the challenges, which compromise the realisation of our relationship to the natural environment, are rethink. A critical review of relevant literature coupled with original reflections of different authors forms the basis of the basis of this paper. The source of information employed is based on legislation and library research. The following materials were sourced from primary and secondary

sources: South African legislation, policies, jurisprudence, relevant case law, reports practices, customs and traditions. Qualitative analysis is utilised as an analytical tool for this article. The article is divided into four sections. In the first section, the study is introduced and in the second the environment and the importance of local management. In the third section, various dilemmas which compromise Corporate environmentalism and climate change are analysed. The final section contains a general conclusion. In certain ways, this paper is a meta-analysis of the existing literature. It can be said that the objective is achieved since the analysis that leads to the opening of fresh streams of thought and balanced perspectives on politically charged issues.

### **THE ENVIRONMENT AND THE IMPORTANCE OF LOCAL MANAGEMENT**

South Africa's constitutional structure divides the powers and functions of government into three parts namely national, provincial and local. In terms of this division, the national government usually formulates broad policies and sets policy parameters for the country as a whole, while the provincial and local governments are mandated to formulate their own specific policies and programmes and to implement them within these national policy parameters (Mokwena, 2009). In a country like South Africa, which is characterised by historically-determined levels of economic and political inequality, addressing the challenges presented by climate change and sustainable tourism has to be done in a manner that is not only democratic but one that progressively reduces the inequalities of the past. It is more promising to address environmental sustainability issues at micro level, as then it may be possible to achieve a more operational strategy (Nijkamp, 2002). The environment is one of the areas with the most recurring interventions from the municipal government, considering the awareness of spatial frictions and the opportunities in the behaviours of economic actors.

In the presence of environmental degradation by burning, deforesting, altering the climate, one can identify a municipal concern with the environmental issue. An outburst at municipal level reveals the importance of increasing articulations which may stimulate a new attitude from civil society in face of social, economic as well as developmental problems. Each municipality seeks original solutions through innovative actions. If one wants to improve a municipality, one should make it develop by improving the quality of its services and seeking human and economic development. The improvement of the standard of living, the democratization of power and the defense of the environment are the new municipal action mottos. Municipalities are involved in areas concerning the tourism attractions, production, circulation and distribution of assets and services, which contribute to an improvement in the tourism attraction, standard of living and to a more democratic and participative management culture.

Difficulties encountered by municipalities in collecting taxes are related to the population's poor income distribution and to payroll reductions that occurred in the last few years. Another constraint to be highlighted in municipalities is the question of licensing. Few municipalities have the capacity to act towards environmental licensing. Such difficulty consists to assign more independence to municipalities, but justifies itself on the diversity among regions, which does not enable a uniform and strict definition of local impact. The demand for licensing has increased as a response to a cultural change on the part of entrepreneurs, and to a greater performance by environmental agencies. Today two criteria prevail that strict environmental liability: environmental impact and the principle of domain or ownership of the natural resource explored.

The environmental demands foster the democratic participation of society in the use of current and potential resources as well as the construction of a new developmental model. The environmental potential of municipalities, the community self-management of resources and the respect for cultural values offer new possibilities for sustainable development.

## **CORPORATE ENVIRONMENTALISM AND CLIMATE RESPONSE**

Much of the environmental debate revolves around the issue of climate change, and the public also seems to expect corporations and tourism destinations to engage actively with environmental issues (Bullis, 2007). Demonstrating a concern for the environment is a vital building block in acquiring legitimacy, which helps to explain why tourism destinations have increased the level of attention they pay to the issue. Tourist attractions have embraced market-based solutions such as emissions trading, self-regulation, and new technology (Dunn, 2002).

Sustainability and sustainable development are highly contested concepts and the understanding is not dominant in the corporate world. Most agree that sustainability says something about an entity's ability to continue in existence, and that sustainable development combines, and balances concerns about environmental and socio-economic issues (Hopwood, Mellor and O'Brien, 2005). Sustainability has become a concept devoid of meaning, and that no effective or necessary changes are taking place (Welford, 1997). However, others see sustainability as referring to an evolving process that is influenced by a discourse that needs to be opened for public participation (Peterson and Norton, 2007).

The issue of climate change garners significant public attention. This analysis focuses on how corporations and tourist attractions address the issue of climate change rhetorically. This analysis concentrates on the classical notion of topics. Some see topics as a way of thinking creatively about different issues, whereas others have argued that they are a way of justifying claims, and others understand them as the basic elements of enthymemes. Climate change is doubtless the greatest environmental challenge of our day and age. Climate change poses risks to human health and well-

being, risks to the ecosystems and their balance, and risks to the markets we serve. Corporations contribute to the construction of discourses on climate change, thus signalling how serious the challenge is and what can be done about it. Tourist attractions cannot construct their responses to climate change at will and the level of attention varies. The high level of international negotiation is also taken into consideration. The argument of: There is money to be made! The argument goes that tackling climate change head will lead to increased legitimacy and improved reputation, which is thus followed by increased profits. Although there may be something to gain from urging tourist destinations to see self-interest in tackling climate change, this cannot be the only approach. Incentives can be effective in rewarding responsible tourist destinations, civil society still needs to maintain a strong regulatory structure to help keep the externalizing machine that is the modern corporation in check (Bakan, 2004).

About the way's tourist attractions address the climate change issue, the analysis indicates that most of them rely on four topics. The first, gravity is not a special topic that belongs only to climate policy. However, it is also not one of the common topics either.

## **HUMAN RIGHTS PRINCIPLES**

The inclusion of the Bill of Rights in the South African Constitution was done during the interim constitution in 1994. The bill of right contain provisions that are relevant to the protection of the environment. It prohibits the enactment of any law, which is discriminatory. Further, the law prohibits ant enactment whose effect has the potential of being discriminatory.

There are three commonly discussed approaches to examining the interaction between environment protection and human rights. This paper investigates these three approaches to examine if the human rights law regime should subsume the environmental law regime, if the latter should subsume the former or if both the legal regimes should exist separately, with mutual interaction.

First, human rights laws, institutions and processes can be invoked for asserting a right to a clean environment. This usually leads to adopting a rights-based approach to environmental protection with an emphasis on the right to a clean environment. The need to provide a healthy and safe environment, as well as the attainment of social rights for all South African citizens, is necessary and laudable, but difficult to achieve against a backdrop of the need for adequate and cheap energy to meet government priorities of economic and social development. Section 24 of the Constitution is a laudable provision in that it provides a framework for the pursuit of sustainable development, but is quite problematic in that the goal of accelerated economic growth is likely to compromise some of the environmental considerations relating to the advancement of citizen's rights to enjoy a healthy natural environment, especially if the current reliance on coal-based energy remains unchanged (Mokwena, 2009).

A second approach would be to leverage environmental laws, concepts, institutions and processes for better protection of human rights which could not be attained in the absence of a clean and healthy environment. In other words, defamations and statutory regulations which refer to “environment protection” could be used to assert protection of human rights.

The final approach could be to interface environmental law and human rights. The movement towards “sustainable development,” which considers the needs of present and future generations, seems to be heading in that direction.

The authors argue that human rights law and environmental law should continue to develop as two independent but closely linked fields whilst “borrowing” opposite concepts. For instance, in countries where a separate right to a clean environment is not formulated in clear terms, the existing human rights provisions regarding the right to life and human dignity can be invoked, on the basis that the right to decent life cannot be protected in the absence of its concomitant right to a clean environment. However, a human rights-based approach can lead to an anthropocentric approach to environment protection. Subsuming environmental law into human rights makes the environment only a function of human needs and rights rather than an issue that deserves protection in and of itself.

The National Environmental Management Act 107 of 1998 is important legislation, providing remedies for preventing or redressing acts that undermine the constitutional right to an environment that is not harmful for people’s health and well-being. It also promotes access to information and public participation in developments that affect the environment. In this process of evolution, environmental law has unleashed several novel principles such as: the participatory principle, the polluter pays principle, the precautionary principle, the inter-generational and intra-generational principles, the prevention principle, the sustainable development principle and so on.

## **THE SEPARATION OF PROPRIETY, ADMINISTRATIVE AND OPERATIONAL RIGHTS OF ECOTOURISM RESOURCES THROUGH LEGISLATION**

It is recommended that the separations of proprietary, administrative and operational rights of ecotourism resources be realized through legislation. The concept of legal pluralism refers to multiple legal rules, which are applicable in a certain jurisdiction. Legal pluralism presupposes the existence of multiple legal rules, which are recognised in a certain legal system.

Firstly, the property right of ecotourism resources belongs to individuals or to corporate. For the individually-owned part of property right which has already constituted the components of ecological landscape within attractions, the owners may be allowed to choose among alternative methods. In addition to acquisition or replacement by the state, the owners may choose such modes as evaluating in terms of money for buying shares, lease, and so on.

Secondly, the national landscape and famous sceneries are in the charge of the South African National Parks department, national forest parks national water conservancy department, tourism industry that is managed by tourism department. Managerial subjects of ecotourism activities stand in great numbers in this kind of management pattern. Authority is decentralised, resulting in massive waste of ecological administrative resources and the situation results in a chaotic management, all are managing, non-is managing, and unable to implement systematic management.

It is recommended that regulatory agency with unified authority be set up in tourism attractions, being responsible for the management of daily routine of the scenic area. Ingenious management models may be adopted, according to specific circumstances.

All kinds of profit-making business activities in ecotourism attraction such as accommodation, catering and entertainment are undertaken by various operators. The operators are administered by regulatory agencies, but they can operate independently, not subject to regulatory agencies.

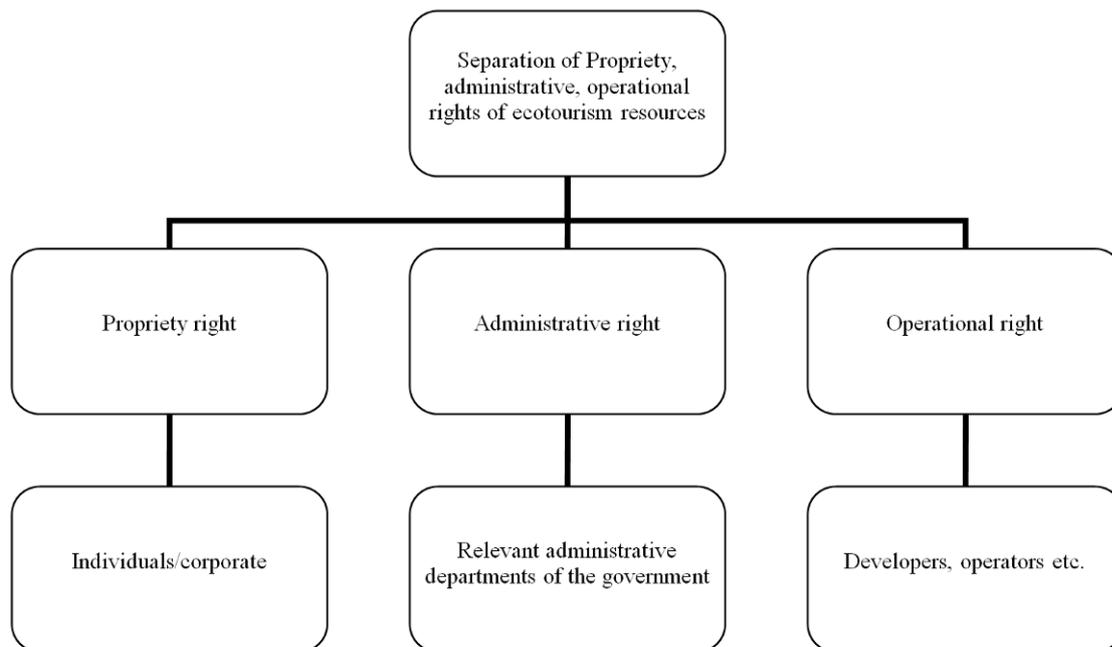


Figure 1. *Fig:1 Separation of Propriety, administrative, operational rights of ecotourism resources*

## DECISION MAKING PROCESS

There is a correlation between the number of actions achieved and the size of the municipality according to population. Municipalities that are less populous stand out for being those that mostly adopt a pro-active attitude and those that present an environmental structure. The search for governances praises local power and strengthens the mobilization capacity of the agents, which requires the awareness of the local population.

Environmental topics are increasingly more constant in the means of communication addressed to local interests and citizen's rights. The dissemination of ideas with respect to environmental conditions together with the technological revolution provides the presence of spontaneous leaderships and popular manifestation.

Governance includes the presence of legal standards so that results can be achieved, and effective control obtained. The applications of sanctions against violators has become a vital instrument and is a consequence of the construction of participative democracy. It is valid to exalt the environmental area as a significant area of participative democracy in function of the adoption of means can notice a strong presence of dwellers' associations, consolidating the role of local militants. Law becomes an essential instrument in the preservation of this order. the desired sustainability is pursued now sociability is degraded at unimaginable levels by capitalist accumulation. Environmental law is a program of studies that proposes an integration of legal knowledge into the analysis of matters related to the environment with a special emphasis on municipalities within a trans-discipline perspective.

## **TOURISM RESOURCES**

One of the main objectives of tourism is to sustain local culture and values, but also the quality of life, and must constantly deal with the changes that occur in the community life and environment. Thus, tourism development success is based on the local authorities' cooperation. Heritage is a particularly sensitive part of culture and mainly of the environment. Massive tourism constitutes an important democratization of tourism and more widely of leisure activities, in full correspondence not only to human right of pursuit of happiness but also the right to develop tourism destinations.

An increasing number of organisations are embracing environmental and sustainability challenges into their strategies and activities (Dangelico and Pontrandolfo, 2015). Integrating the environmentally friendly tasks into organisational strategies several benefits can be achieved. This include improved performance not only on organisational but also on environment relevant aspects. Organisations can implement several actions to reduce their negative impact on the environment and directly or indirectly they can improve business performance (Kabongo and Boiral, 2017).

The dynamics of tourism as an activity and as an industry, combined with the growing concerns about the environment and the effect of climate change call for a non-stop effort in seeking new approaches, tools and perspectives for the acquisition of environmental knowledge by organisations in the hospitality sector (Song, Dwyer, Li, and Cao, 2012). The need for institutional innovation and generative change in response to the sustainability imperative emphasises the necessity of organisational learning in the hospitality and tourism industry.

## **CLIMATE CHANGE AND THE IMPLICATIONS FOR TOURISM**

The phenomenon known as “climate change” refers to an ongoing trend of changes in the Earth’s weather conditions as a result of an average rise in the temperature of the earth’s surface often referred to as global warming. Climate change have become the focus of media attention as well as substantial scientific debate. Our lifestyles, economies, health and social well-being are all affected by climate change, and although the consequences of climate change will vary on a regional basis, all nations and economic sectors will have to contend with the challenges of climate change through adaptation and mitigation. Climate change may not necessarily be conducive to the interests of tourism sustainability; therefore tourism is no exception and, in the decades, ahead, climate change will become an increasingly pivotal issue affecting tourism development and management. Weather and climate have a profound influence on natural system and human societies around the world. Climate change can affect tourist experience and incorporate in travel decision process (Scott, Hall and Gössling, 2012). Weather and climate are important factors in relation to outdoor recreation and tourism. Climate change could be considered as one of the biggest problems of modern living, and the tourism is one of many sectors affected mainly through the changing faces of tourist destination. Climate change scenarios suggest that changes in seasonality and intensity of rainfall will impact the runoff and groundwater recharge and the storage of water in the soil, dams and reservoirs (Mukheibir and Ziervogel, 2006).

Water availability is a key climate change-related vulnerability and negative impacts on the availability of water will be felt by people, ecosystems and the economy. Future changes in temperatures and other important features of climate will manifest themselves differently across the regions of the world. The lessons from Cape Town, is that every city must invest today in the infrastructure and policies that will protect citizens from the future effects of our changing global climate.

The effects of climate change in South Africa are not limited to increased water scarcity in some parts of the country and drastic qualitative changes in the water supply, but extend to losses in biodiversity and rangelands, which impacts on maize farming and the agricultural sector, as well as possible increases in infectious and respiratory diseases and in the tourism industry (Kiker, 2000).

## **GLOBAL WARMING: THE LEGAL REQUIREMENT IN SOUTH AFRICA**

In March 2017 the High Court of South Africa handed down a decision that has been hailed in some quarters as a victory in the fight against dirty energy and global warming in the case of EarthLife Africa Johannesburg v Minister of Environmental affairs and Others (ZAGPPHC 58 [2017] 2 All SA 519 (GP) (8 March 2017).

*Summary of the case:*

The South Africa's High Court was recently asked to determine whether, under the National Environmental Management Act 107 of 1998, "relevant" considerations for environmental review of plans for a new 1200 MW coal-fired Thabametsi Power Projects include the project's impacts on the global climate and the impacts of a changing climate on the project. The power station is to be built by Thabametsi and is intended to be in operation until at least 2061. The court, after observing that the statute does not expressly contemplate climate change, held that such considerations are relevant and that their absence from the environmental review of the project made its approval unlawful. This question came before the court as a result of EarthLife Africa Johannesburg's appeals. The courts after observing that the statute does not expressly contemplate climate change, held that such considerations are relevant and that their absence from the environmental review of the project made its approval unlawful. The first appeal was submitted to the Minister of Environmental Affairs to challenge the adequacy of the project's environmental review; EarthLife argued that the review was invalid because it largely ignored climate change. The application for review accordingly invites determination of whether the DEA is obliged to fully assess the climate change impacts of a proposed coal-fired power station before environmental authorisation is granted in terms of NEMA. The argument of EarthLife was that a climate change impact assessment must be conducted before environmental authorisation is granted in order for the relevant decision-makers to determine firstly whether the construction of a coal-fired power station should be allowed at all.

The court cited several reasons, including South Africa's commitments under the Paris Agreement, for its conclusion that climate change is indeed a relevant consideration for the environmental review of the Thabametsi Project. Because the review approved by the minister effectively ignored climate change, the court held it to be legally invalid.

In EarthLife's appeal, it was argued that the Chief Director's decision was not lawful because no climate change impact assessment was conducted as part of the environmental impact assessment report submitted by Thabametsi Power Company (Pty)Ltd to the Chief Director for consideration. The Minister upheld the decision of the chief Director to grant environmental authorisation for the proposed Thabametsi coal-fired power station on the condition that a climate change impact assessment is conducted. When it lost that appeal, the nongovernmental organisation approached the Pretoria high court to set aside the decision as "unlawful and invalid", because the minister had granted the authorisation without a climate change assessment.

The decision in this case should serve as a call for all parties to fully consider potential impact that projects may have on South Africa's commitments to curtail global warming.

## CONCLUSION

The focus of this article was to rethink the relationship to the natural environment: sustainable tourism. The second task of this article was to establish that sustainability first assumes that human needs must indefinitely be met without jeopardizing organisms within the environment. Secondly, we must ensure and control of community while maintaining the environment that sustains them.

It is imperative to have sustainability as a primary guiding principle and conceptual framework within which to analyse the decisions taken by officials. The balancing must take place within the context of competing socio-economic conditions that influences politics, and hence the processes and outcomes of policy debate and the local and national levels of government. The need for municipalities to intensify their attempts at raising financial resources and earmarking funds for climate change programmes that are integrated with broader developmental projects.

To highlight that this would only go as to democratise the internal functioning of the state on the issues of environmental impact like climate change, rather than democratising state citizen relations on this matter. More research and implementation, however, still needs to be done to establish sustained and meaningful engagement between the state, at local level, and its citizens on climate change and the environment, although this cannot be achieved without strengthening municipal structures and systems that are intended to facilitate increased public participation more generally. The technical complexity of the environmental debate includes the climate change in and of itself is likely to mitigate against broad-based public interest and involvement in municipal debated on the subject.

Societies can respond to climate change by adapting to its impacts and by reducing greenhouse gases emissions (Scott, Hall and Gössling, 2012). The realities of global warming seem to evidence a complex and profound political issue. Tourism should be viewed as an instrument to deter global warming, but not as the goal itself. The efforts to prevent the negative greenhouse effects are not enough to enable the development of shared policies on eco-management. Continued climate-driven degradation and disruption to cultural and natural heritage will negatively affect the tourism sector, reduce the attractiveness of destinations and lessen economic opportunities for local communities; as natural and cultural resources are the foundation for the tourism sector's competitiveness.

Tourism sustainability means that we must make sure resources in an area can be preserved for use of future generations of the locals and the tourists. We must be aware of the impact that lots of visitors and tourists can have on a destination and finding ways to make that impact as positive as possible. Natural resources must always be used sparingly and only when needed because our earth and all the tourist destinations has so much to give. We must minimize these negative impacts and focusing on more positive ones, such as promoting cultural exchange and preserving local traditions. A way to achieve this goal is by getting the communities and the municipalities involved in the tourism industry.

This could also be done by as simple encouraging the sharing of local customs, or as involved as making it easier for locals to start or own new businesses to serve tourists. We had to rethink our relationship with the environment to achieve sustainable tourism in South Africa. It is also important to contextualise the potential impacts of the fourth industrial revolution on the environment an the impact on the tourism industry.

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*Earthlife Africa Johannesburg v Minister of Environmental affairs and Others ZAGPPHC 58 [2017] 2 All SA 519 (GP) (8 March 2017).*

## DIGITAL INTERNATIONALISATION OF RIDE HAILING FIRMS

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### ABSTRACT

The paper studies the internationalisation and differentiation strategies applied by global firms operating in the shared economy and the ride-hailing sector in particular. The study adopts a multiple case-study research design based on a qualitative analysis of business strategies of seven leading global ride-hailing firms, selected on the basis of a purposive sampling method.

The research concludes that the Global Born Firm and Uppsala models are valuable as theoretical frameworks to analyse the patterns in the internationalisation strategies and concludes that three of the global ride hailing firms follow the GBF model and four firms have strategies with direct similarities with the Uppsala model. The study concludes that the Generic Strategy model can be used to identify differentiation strategies of ride-hailing service firms. Four firms apply a hybrid strategy combining a cost focus with a differentiation in service quality and customer focus, whereas three other companies focus on differentiation by addressing the particular needs of the drivers and customers. All firms seek further differentiation in terms of innovation towards new platform-based services such as delivery, fintech and alternative transport services.

The study results are directly relevant to smaller firms and newcomers from developing countries who want to compete and offer alternative options to the small number of global firms. It offers researchers a further insight in the value of internationalisation and differentiation theories in shared economy sectors such as ride-hailing services. Future academic research should focus on a sector-wide quantitative analysis of internationalisation and differentiation patterns to strengthen evidence-based application of business strategies to these services.

*Keywords: Shared economy, ride-hailing services, differentiation strategies, internationalisation strategies, generic strategies, born global firms, uppsala internationalisation model*

### INTRODUCTION

The sharing economy represents a new business model that seeks to connect consumers and business in new ways through unique digital platforms and business-to-business, business-to-consumer, consumer-to-consumer, and peer-to-peer models (Anwar, 2018). In the sharing economy individuals

and companies share services or assets are shared free or for a fee (Ossewaarde & Reijers, 2017). The sharing economy comprises various types of networked products and services including the sharing of resources such as houses, bikes and cars, redistribution of used products and different forms of collaborative financing such as crowdfunding and peer to peer lending (Anwar, 2018). The combined revenues in ride-hailing and taxi services is about US\$ 192 billion in 2020 and expected to grow with 18% on an annual basis to US\$ 365 by 2024 (Statista, 2020).

As part of the sharing economy a series of shared transport services were developed including car ride sharing among car owners and non-car owners. This evolved into a new ride-hailing service (RHS) where drivers and customers are connected through a digital service platform allowing a cost efficient real time and geographically based connection between drivers and customers. The platform based ride hailing service was first introduced by Uber in 2009. Since then over 30 ride-hailing service firms (RHF) offer similar services worldwide. In most countries two or three RHF compete with the traditional tax services. While this has resulted in improved quality and lower service costs the larger companies dominate in most markets.

In many cases newcomers and smaller firms from developing countries face high entry barriers as a result of high cost of platform development and marketing and a limited access to investment capital (Anwar, 2017). These firms also have limited resources to analyse the attractiveness of foreign markets and are dependent on their existing networks (Neubert and Van Der Krogt, 2019). These characteristics favour the position of current incumbent operators and results in limited competition and can on the longer-term decrease competition, the accessibility and quality of services.

Furthermore, despite fast growth and expansion of the market as a result of lower prices and increased customer focus, future expansion may be limited to urban middle and higher class users on the longer term (Hensley, Padhi & Salazar, 2017). This implies that we will see a market consolidation towards one or two major companies per market. Particularly in a niche market such as ride-hailing services current smaller firms and future newcomers in the ride-hailing market will need to seek effective internationalisation and differentiation strategies. With increasing globalization in the shared economy, there is a clear need for the local firms to further develop and expand their innovative products into the international markets (Neubert & Van Der Krogt, 2017, 2018).

## **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

### *Internationalisation theories*

Based on the research problem and the purpose, this multiple case study uses the Uppsala Internationalization Process Model (UM), the Born Global (BG) and Lean-Global Start-up Internationalization Process Model (LGS) as conceptual frameworks (Neubert, 2017).

Ride-hailing service firms (RHF) using the UM internationalize based on a market distance and market commitment establishment chain (Vahlne and Johanson, 2020). With their main firm-specific advantage, they enter new foreign markets with low cultural, administrative, geographical, and economical market entry barriers and commit resources depending on market success like for example the internationalization of Yandex in Russia and its neighboring countries and Grab in south-east Asia, or the market entry of Lyft in Canada (Neubert, 2018). This proximity contributes to the market attractiveness and influences the speed of internationalization positively due to faster learning (e.g., similar regulations and consumer behavior) and networking processes (e.g., existing networks and business opportunities) (Vahlne and Bhatti, 2019).

RHF using the BG internationalize early and fast after their incorporation on a global (= born global) or regional (= born regional) level through market-seeking activities (Neubert, 2017). Born Global RHF apply the BG after a successful development of their home market (for example: Didi in China). The case study firms of this study may be considered as Born Global RHF in the sense of digital born globals (Monaghan, Tippmann, and Coviello, 2020) The goal is often to become a regional or global market leader or a pioneer in a specific market niche. To increase the speed of internationalization, RHF using the BGM focus on the most attractive markets, regions, and often (mega-) cities with a high population density, which may be far away from their home markets as the examples of Didi's market entry to Latin America and Bolt's to Africa show.

A lean global start-up internationalization process model (LGS) is another strategic alternative for RHF to internationalize (Neubert, 2017; Rasmussen and Tanev, 2015; Blank, 2013). Based on market opportunities, RHF select and enter foreign markets, and perhaps exit them, if the market entry project fails (e.g., UBER in China or Russia). Examples of market opportunities are the possibility to acquire a national or regional ride hailing firm, a new law to liberalize the transportation industry in a country, or insufficient public transportation systems in a specific target market. The LGS model includes also the need to adapt to consumer preferences and behaviour through targeted services, which are in demand in a market, region, or city (e.g., food transportation, business clients).

#### *Differentiation theory: Generic Strategies*

For the purpose of this paper, Michael Porter's Generic Strategies model is used to explain the difference in business strategies between global ride-hailing firms (Porter, 1985). The model is also applicable to the shared economy services such as RHF (Kim, Nam and Stampert, 2004). To be able to survive in the highly competitive platform-based services, companies will need a very clear competitive strategy (Firoz, Rashidirad & Firoz, 2019).

Within these kinds of markets, companies can focus on cost leadership thanks to the limited operational costs and elevated economics of scale that platform-based companies can achieve in service

operations, marketing and the possibilities to gather and analyse large volumes of customer information services. Competition with traditional taxi services is based on the limited required investment in assets as the RHF do not incur costs of buying the medallion or license, fleet of cars, hiring drivers and maintaining the vehicles allowing technology-driven start-up to enter the market previously dominated by traditional incumbents and gain the market share (Harding, Kandlikar & Gulati, 2015). Alternatively, companies can exploit a differentiation strategy to outcompete their competitors by offering improved service quality, a clear focus on customer needs, and efforts to build branding at global levels. In the particular case of the ride hailing sector, Porter's innovation strategies represent a key differentiation factor that is relates to platform based innovation strategies that allow to expand into new shared economy services and markets such as transport, logistics, fintech, and other sectors (Hales & Mclarney, 2017).

Yet, while there are extensive opportunities in favour of a cost leadership strategy a cost focus alone may not be a sufficient strategy because these competitive advantages also apply to the competitors. Therefore, research suggest that companies need to combine both a cost focus benefiting from the opportunities of low-asset services and cost effective platform based services and seek distinctive and continuously new differentiation strategies to be successful (Kim, Nam and Stampert, 2004; Firoz, Rashidirad & Firoz, 2019). This can be considered as an adapted business strategy based on a hybrid of cost leadership and differentiation rather than a stuck in the middle strategy as suggested by Porter (Hales & Mclarney 2017).

Table 1: Adapted Generic Strategies model for ride-hailing services

|                   |   |  |   |
|-------------------|---|--|---|
| Competitive Scope | Broad target market   | Cost leadership  | Differentiation   |
|                   | Narrow target market or niche market of Ride-Hailing Services | Cost focus<br>Economies of scale<br>Integrated service platforms | Differentiation focus<br>Service quality<br>Customer focus<br>Branding<br>Platform based innovation |
|                   |   | Lower Costs  | Differentiation   |
|                   |   | Source of competitive advantage                                  |   |

Source: Adapted from Porter (1985)

## RESEARCH METHODOLOGY AND RESEARCH QUESTIONS

The key research questions of the research are:

1. What internationalisation patterns follow the leading global ride-hailing firms?
2. What differentiation strategies are applied by the leading global ride-hailing firms?

Most studies on ride hailing services apply a case study approach on one particular company or seek to compare two companies. The individual case study method allows for an in-depth description and understanding of the background and foundations of firm strategies but limits the possibility to identify generic business models and sector-wide patterns in business strategies in the ride-hailing industry (Anwar, 2017; Kosintceva, 2016). Therefore, this study applies a multiple case-study research design that allows to find linkages between business strategy theories and patterns in company strategies in the ride-hailing sector. The current business theories and perspective can be enhanced by multiple-case studies that recollect and systematically analyze empirical data to answer qualitative research questions to connect to new types of products and services such as those operating in the shared economy (Halkias & Neubert, 2020). The multiple-case study design allows for a more flexible analysis of patterns across the different case studies of the sample (Yin, 2018; Neubert, 2018).

As part of the research methodology, the company selection considered a purposive sampling method in which the research team uses its judgment when choosing members of the population to participate in the study (Suri, 2011; Neubert, 2017). This sampling method is widely used to identify information-rich cases in a cost-effective and time-effective way (Merriam and Tisdell, 2019). This sampling method is particularly applicable to the analysis of innovative practices as found in the case of service that are based on technology platforms connecting users and providers as offered by the shared economy (Palinkas, Horwitz and Green et al., 2015). For this study, the seven largest global ride-hailing companies were studied and all have developed a combined business strategy based on internationalisation and differentiation of its services. These companies have all started operations between 2010 and 2013, allowing for sufficient information and data collection to deduct business strategy patterns.

Data was collected in May and June 2020 using different sources of evidence like for example scientific academic articles and corporate documents (annual reports and strategy papers), reports from consultants, journalists, and investors. Regarding the selection of the cases studied, the cases should have things in common when employing the multicase technique on research (Stake, 2006). Data analysis started with a with-in case analysis using a thematic analysis based on codes developed through a triangulation of the different sources of evidence, followed by a cross-case analysis to identify common themes and patterns (Halkias & Neubert, 2020).

## RESEARCH FINDINGS

The case studies include Uber with headquarters in the USA as the largest RHF with services in 900 cities in 80 countries and increasingly differentiated service offering ([www.uber.com](http://www.uber.com)). Although Lyft only operates in the USA and Canada, it is among the largest operators and main competitor to Uber

in the USA with services in 649 cities ([www.lyft.com](http://www.lyft.com)). Russian based Yandex.Taxi is a technology company leading in ride-sharing services in Eastern Europe and active in 1,000 cities in 18 countries ([www.taxi.yandex.com](http://www.taxi.yandex.com)). Chinese company Didi Xuxing is leading in China and now active in 11 countries with operations in 400 cities ([didiglobal.com](http://didiglobal.com)). Grab is the leading RHF in South East Asia, born in Malaysia and later based in Singapore with services in eight countries and 235 cities ([www.grab.com](http://www.grab.com)). The biggest company from India Ola Cabs operates in more than 250 cities in four countries including India, Australia, New Zealand and recently acquired a licence in the UK ([www.olacabs.com](http://www.olacabs.com)). The leading company in Africa is Bolt with services in 150 cities in 35 countries across Europe, Africa, and Asia ([blog.bolt.eu/en](http://blog.bolt.eu/en)).

*Answers to research question 1: Internationalisation patterns of leading ride-hailing firms*

The multiple case study revealed two-fold patterns in internationalisation with three of the firms, Uber, Didi Chuxing and Bolt following an internationalisation strategy based on BGM (see table 2). After its start in 2011 in the USA, Uber followed directly an exponential global expanding strategy representing a clear case of a BGM strategy (Kosintceva, 2016). Didi started with fast expansion in the vast market in China and once established expanded its services at a fast pace since 2018 with new operations in Asia and Latin America. In a similar way, Bolt initiated its operations as a regional born company in Eastern Europe in 2013 but already in 2016 became a BGM ventured into Latin America, Africa and Western Europe. Yandex can also be categorized as a BGM as it seeks regional expansion but in a very fast pace growth into more distant Western European and African markets in its second year of its foundation.

Lyft, Grab and Yandex show patterns based on UM whereby the company seeks a slower expansion model towards markets with similar cultural, social and economic characteristics (see table 2). Lyft seeks to expand from larger into smaller cities in the same USA and took five years to seek its first foreign venture into the neighbouring and similar Canadian market and is expected to seek its next expansion into Mexico, where it can build on its experience in the US-based Latino markets. Grab has followed the UM strategy through a much slower annual and regional expansion into two or three countries South-East Asia. The case of Ola Cabs is still less clear in terms of its internationalisation strategy (Panigrahi, Shahi & Rathore, 2018). Similar to Lyft and Didi the company focused since its start in 2010 for a longer period on establishing a strong position in its large Indian home market. In 2018, however it decided to explore more distant foreign markets in Australia, New Zealand and the United Kingdom.

Table 2: Internationalisation process of leading global ride-hailing firms 2011-2019

| Firm   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016  | 2017  | 2018  | 2019                                    |  |
|--------|--------|--|--|--|--|---|---|---|---|--|
| Uber   | France | Canada<br>United Kingdom<br>Australia<br>Netherlands | Mexico<br>Taiwan<br>South Africa<br>India<br>Colombia<br>Taiwan<br>UAE | China<br>Bahrain<br>Belgium<br>Chile<br>Republic<br>Denmark<br>Hong Kong<br>Israel<br>Lebanon<br>Zealand<br>Norway<br>Panama<br>Poland<br>Peru<br>Qatar<br>Arabia<br>Switzerland<br>Turkey | Nigeria<br>Austria<br>Brazil<br>Czech<br>Greece<br>New<br>Saudi<br>Sweden<br>Uruguay | Morocco<br>Lithuania<br>Kenya<br>Dominican Republic<br>Estonia<br>Ireland<br>Romania<br>Sri Lanka | Argentina<br>Ukraine<br>Andorra<br>Bolivia<br>Costa Rica<br>Croatia<br>Ghana<br>Guatemala<br>Macau<br>Pakistan<br>Spain<br>Uganda<br>Tanzania | Ecuador<br>El Salvador<br>Honduras  | Bangladesh<br>Egypt<br>Finland<br>Italy | Paraguay<br>Germany<br>Ivory Coast<br>Jordan<br>Japan<br>South Korea<br>Slovakia   |
| Didi   |        |  |  |  |  |   |   | Taiwan<br>Hong Kong<br>Mexico<br>Japan  | Brazil<br>Kong<br>Australia             | Colombia<br>Chile  |
| Yandex |        |  |  |  |  |   |   | Armenia,<br>Azerbaijan,<br>Belarus, Georgia,<br>Kazakhstan<br>Latvia,<br>Uzbekistan,<br>Estonia, Lithuania,<br>Ivory Coast<br>Finland<br>Israel |   | Ghana<br>Romania   |
| Bolt   |        |  | Estonia  | Belarus,<br>Lithuania<br>Latvia, Mexico,<br>Georgia  | Serbia,<br>Czech Republic  | Slovakia<br>Romania<br>Hungary<br>South Africa<br>Kenya<br>Ghana,<br>Nigeria<br>Tanzania          | Poland<br>France<br>Uganda  | Portugal<br>Ukraine   |   | Armenia<br>Austria,<br>Azerbaijan<br>Cyprus<br>Spain,<br>Croatia,<br>United Kingdom,<br>Russia,<br>Malta,<br>Sweden,<br>Tunisia,<br>Kazakhstan<br>Saudi Arabia |
| Ola    |        |  |  |  | India  |   |   | Australia<br>Zealand  | New                                     |  |
| Lyft   | USA    |  |  |  |  |   | Canada  |   |   |  |
| Grab   |        | Malaysia   | Singapore<br>Philipp   | Vietnam,<br>Indonesia  |  |   |   | Myanmar   |   |  |

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Source: Elaborated by the authors on the basis of company websites [www.uber.com](http://www.uber.com), [www.grab.com](http://www.grab.com), [www.lift.com](http://www.lift.com), [www.taxi.yandex.com](http://www.taxi.yandex.com); [blog.bolt.eu/en](http://blog.bolt.eu/en); [www.olacabs.com](http://www.olacabs.com); [www.didiglobal.com](http://www.didiglobal.com)

Answer to research question 2: Differentiation strategies of leading ride-hailing firms

Despite the similarities of the basic platform-based services provided, the differentiation strategies of the seven global companies studied vary considerably. Uber's strategy is primarily focused on cost leadership using the low asset costs and economies of scale of shared platforms that characterize ride-hailing services (see table 3). The highly efficient and scalable technology platform of Uber, lower participation in revenue sharing of drivers to be the sector's cost leader in developed countries. Using first mover advantages in most markets, cost leadership was applied to new markets to outcompete traditional taxi services and in markets with platform-based competitors the company undercuts market prices to gain a fast and dominant market share particularly in up-market segments. Cost leadership is combined with convenience, comfort and cost savings in transport services and a strong global branding strategy to capture large market shares, thereby representing an example of a hybrid business strategy (Anwar, 2018; Hales & Mclarney 2017).

Table 3: Differentiation strategies of leading global ride-hailing firms

| Company | Cost focus | Differentiation focus |                |          |                           |
|---------|------------|-----------------------|----------------|----------|---------------------------|
|         |            | Service quality       | Customer focus | Branding | Platform-based innovation |
| Uber    | x          | x                     |                | x        | x                         |
| Didi    |            | x                     | x              | x        | x                         |
| Yandex  |            |                       | x              | x        | x                         |
| Bolt    |            | x                     |                | x        | x                         |
| Ola     | x          |                       | x              | x        | x                         |
| Lyft    | x          | x                     |                | x        | x                         |
| Grab    | x          |                       | x              | x        | x                         |

Source: Elaborated by the authors

Four companies including Grab, Ola.cabs, Didi Chuxing and Yandex.taxi have chosen primarily a strong customer focus. Grab and Ola Cabs have sought to enhance services accessibility by lower-income customer segments in their developing markets by introducing lower-priced, transparent and efficient motorbike and hatchback services in large congested urban cities (Tam, Lam, Chiu et al, 2018; Panigrahi, Shahi & Rathore, 2018). The cost focus allows these RHF to compete with Uber on price and customer needs and the lower market segments. Didi Chuxing and Yandex.taxi focus on customer needs through the innovation in the effectiveness of ride-hailing services using big data, augmented

reality and artificial intelligence to optimize navigation and by introducing localized services such as group ride-sharing services along preset roads in overcrowded cities (Wirtz & Tang, 2016).

Three companies specifically seek improved quality in a very different way by enhancing their partnership including a transparent and better revenue sharing with drivers. With drivers being the main intermediaries between the platforms and customers this strategy can enhance the service quality. Lyft combines a competition on costs and lower prices and active branding with the binding of its drivers by transparent revenue sharing models, the acquisition of cars and subsidized fuel prices for their drivers which results in a steady increase in the market share in the USA up to 40% in 2020 (Wirtz and Lovelock 2016). Rather than disrupting the traditional taxi market, Didi Chuxing and Bolt has developed a service that allows integrated solutions for traditional taxi companies which has allowed the company to gain a leading position in Eastern Europe and Africa (Wirtz and Lovelock, 2016).

Aligned with the nature of the sector, the ride-hailing companies seek innovation as a differentiator but with interesting differences. Most companies aim to exploit their technology platform to offer improved and new services to their current customer base. To address its lower customer segments, Ola Cabs sets a priority to the development and introduction of less ambitious innovation in its services focusing on electric cars (Panigrahi, Kumar, Shambhavi et al, 2018). To a lesser extent, the advanced technology platform operated by Grab also facilitates differentiation of services including integrated delivery and fintech services through its technology platform (Tam, Lam, Chiu et al, 2018). Didi is a clear market leader in platform-based innovation which allows for a fast optimization of current services and integration of new big-data and artificial intelligence driven services such as voice activated digital assistants, delivery, reservation and fintech services and self-driving cars (Wirtz & Lovelock, 2016). In a similar way, Uber seeks new leading high-end market positions and profitability by entering fully new services and markets as a newcomer including delivery services, self-driving cars and future large scale aerial passenger transport (Uber, 2016). It is also seeking to be a first comer in advanced business to business platform-based services in the transport and logistics sector.

## DISCUSSION

This study confirms the assumption that multiple-case studies can provide a better understanding of the relationship between business strategy theory and empirical data and analysis to find actual patterns in firm strategies in the shared economy as suggested by recent research by Halkias (Halkias & Neubert, 2020). Challenges to future scholarly research are found in a deepening of the multiple-case study with a more robust quantitative recollection of firm data and statistical analysis and the

inclusion of a larger number of companies active in the ride-hailing sector to gain a broader and more in depth understanding of patterns in business strategies of larger and smaller players from developed and less developed countries and in the sector.

The paper provides a further insight into the applicability of internationalisation models UM, BG, and LGS, and Generic Strategies apply to software and platform based service providers such as ride hailing service as suggested by other authors (Neubert and Van der Krogt, 2017, 2018, 2019). The findings indicate that the UM and BGM models together do represent an effective theoretical framework to understand and identify the different internationalisation patterns of the ride-hailing companies.

The findings also confirm that the Generic Strategies model is also of value if it considers the particularities of the role of platform based innovation which strongly amplifies the possible differentiation strategies of the RHF as suggested by research by Kim (Kim, Nam and Stampert, 2004) and Firoz (Firoz, Rashidirad & Firoz, 2019). Furthermore, the study confirms the assumption of authors such as Hales and that, to be successful in shared platform services as ride hailing services, firms need to apply a hybrid business strategy of cost leadership and differentiation (Hales & Mclarney 2017). However, further research is needed to develop a more distinctive set of differentiation strategies which allows for a better analysis and comparison of business strategies in the complex and fast developing ride-hailing services industry.

## CONCLUSIONS

This paper responds to the call and need to analyse in a more systematic research on the business strategies of leading ride-hailing incumbent companies and to seek increased alignment of strategies with current theoretical business strategy models. A better understanding of patterns in business strategies of incumbent firms can assist smaller operators and newcomers in expanding and surviving in a highly competitive market that is dominated by a small number of global players.

The multi-case study of the seven-leading global RHF shows in response to the first research that global companies follow two different internationalisation strategies. Three of the companies follow a fast BM strategy and four companies a strategy following the Uppsala model which seeks a slower and solid national expansion of services and a later regionally-based foreign expansion.

Responding to the second research question, the RHF have distinctive differentiation strategies. Uber focuses on a hybrid strategy based on global cost leadership combined with high quality services. Four companies seek as a primary strategy to optimize the customer experience by catering to lower income customers in developing markets or by using advanced digital technology to optimize navigation and payment services. Three firms focus on service quality by improving their partnerships with drivers as

a key intermediary between platform-based services and the customer. In line with the nature of the shared economy, all RHF use platform-based innovation to expand to a more lesser extent into new services for their current customer base such as delivery and fintech services and venture into new markets in the transport and logistics sector.

These results provide smaller operators and newcomers in the market of ride-hailing services with relevant business strategy options to choose from when seeking to expand service in their home markets and to select internationalisation into foreign markets. It also provides an initial set of qualitative findings on internationalisation and differentiation strategies. This multiple case-study research design has several limitations in scope and size that offer new ideas for additional research. Future scholarly work should also include more quantitative and sector-wide analysis of internationalisation and differentiation patterns of a larger number of RHF in the sector.

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## FINANCING OF CULTURAL POLICY IN THE CITIES

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### ABSTRACT

The financing of cultural policy is underdeveloped research issue in Slovak cities; even though the historical and cultural heritage is very rich and extraordinary. The paper explores the topic on the example of selected Slovak cities – Košice, Banská Bystrica, Banská Štiavnica. Each of the city represents a different “kind” of city – Košice is a creative and culture city established on the great success of European Capital of Culture (ECC), Banská Štiavnica is a city with a worldwide known historical and cultural UNESCO heritage and Banská Bystrica was a centre of important events in forming Slovak history, but now only with the average level of local cultural development. The main idea of the paper is to compare the role of culture financing as a potential driver of local cultural development and characterise differences between cities.

*Keywords: Culture. City. Financing. Development.*

### INTRODUCTION

The local culture is an important part of heritage, significant source of local identity, education, historical knowledge and patriotism of citizens. It is a mean of building tolerance, cohesiveness and understanding between ethnic and religious groups. The development of culture and the protection of the cultural heritage at the local level can be a key driver of local development.

The paper deals with the issue of financing of culture by the local municipality, on the example of selected Slovak cities – Košice, Banská Bystrica, Banská Štiavnica. Each of the city represents a different “kind” of city – Košice is a creative and culture city established on the great success of European Capital of Culture (ECC), Banská Štiavnica is a city with a worldwide known historical and cultural UNESCO heritage and Banská Bystrica was a centre of important events in forming Slovak history, but now only with the average level of local cultural development.

The main idea of the paper is to compare the role of culture financing as a potential driver of local cultural development and characterise differences between cities. The first part of the paper explains the institutional and strategical framework of the local cultural policy in the Slovak Republic. The

second part defines the methodology and data used. The third part analyses the selected indicators of the financing of cultural policy in the mentioned cities and compare them from the cultural importance point of view for the local development. To conclude the paper, we point out the main challenges in financing of culture at the local level and utilization of culture as a driving force of local development.

## **CULTURAL POLICY IN THE SLOVAK REPUBLIC AT THE LOCAL LEVEL FROM THE INSTITUTIONAL AND STRATEGICAL POINT OF VIEW**

Local culture is the smallest geographical-territorial component of culture. It represents an essential feature of culture, the self-expression of the local population, its contribution to regional and national culture. It includes cultural expressions and activities (cultural products, cultural processes and their cultivation) and cultural peculiarity and peculiarity, its degree and level of participation by the local community in cultural life and creation in its environment.

The culture and cultural heritage of each municipality should co-create a sense of home, security, but also increase the attractiveness of the territory for residents, local businesses, visitors of the territory and potential investors. Support of local cultural activities, cultural life and a detail knowledge of the cultural resources of the territory become a competitive advantage, a strength and a sign of the development of municipalities.

In the Slovak Republic, the public institutional basis for the development of local culture consists mainly of municipal museums, galleries, libraries, theatres and music institutions, art ensembles, cultural-educational facilities including observatories and planetariums, as well as the relevant specialized workplaces of the Center for Folk Art Production, Matica slovenská, Slovak Academy of Sciences and public universities. In the paper we pay attention to the cultural services delivered by the local authority. Namely, the competences of local municipality in the field of culture are regulated by Act no. 369/1990 Coll. on Municipal Establishment as amended and other laws (Constitution of the Slovak Republic, Act of the National Council of the Slovak Republic no. 309/2014 Coll., amending and supplementing act of the National Council of the Slovak Republic no. 539/2008 Coll., on support regional development). They include:

- the establishment of municipal and school libraries, educational centers and educational facilities, museums, galleries and theatres,
- creation of conditions for cultural and edification activities (within the framework of edification activities, artistic, cultural-educational and cultural-social activities, education and leisure-time activities),

- regulations of zoning and responsibility for planning documentation of settlement units and zones; conception of development of individual areas of community development, especially in the form of program of economic and social development of municipality,
- ensuring the construction, maintenance and management of public spaces, cultural facilities and cultural heritage owned by the municipality,
- creating conditions for the protection of the heritage fund and heritage areas in the municipality,
- recording the municipal chronicle,
- compilation of lists of monuments of the municipality.

To the largest share of competencies of local municipalities belong mainly establishing and managing libraries, galleries, museums and theatres. The figure 1 shows the share of cultural institutions in the competence of local municipalities on the total number of selected cultural institutions in the SR.

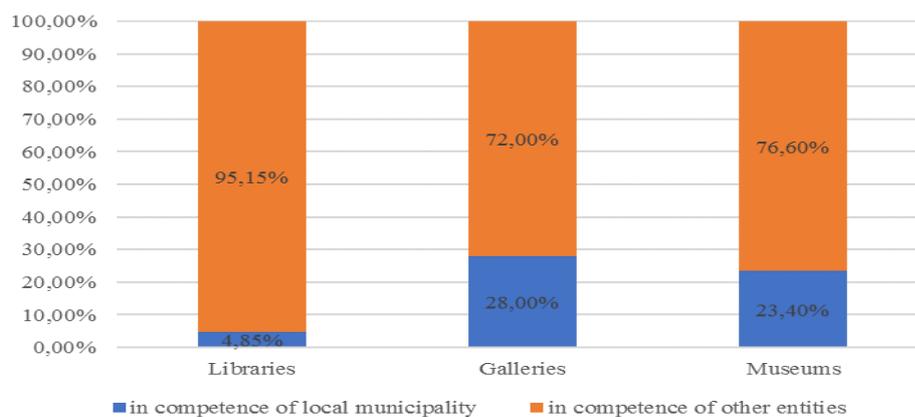


Figure 1: *Cultural institutions in the Slovak Republic*

The offer of public cultural institutions is complemented by non-governmental organizations, professional associations, collectives and individuals in the field of cultural-educational activities and non-professional artistic creation, folk art producers, registered churches and religious societies, engaged/active chroniclers, teachers, volunteers, academics, etc.

The local authority as a founder of cultural institutions administers all agenda related to the financial, managerial and organisational relationships with the established institutions. Depending on the size of the municipality these tasks can be realised by the separate department specialised on culture or can be added to the scope of work to other departments related to this topic, e.g. tourism. As an advisory and facultative body for the municipal council in the field of culture can established the commission for culture. It provides the professional feedback for the planned, as well as, organised activities in the cultural development, selects the local private and non-profit projects in culture that should be supported by donations or realised in cooperation with the city.

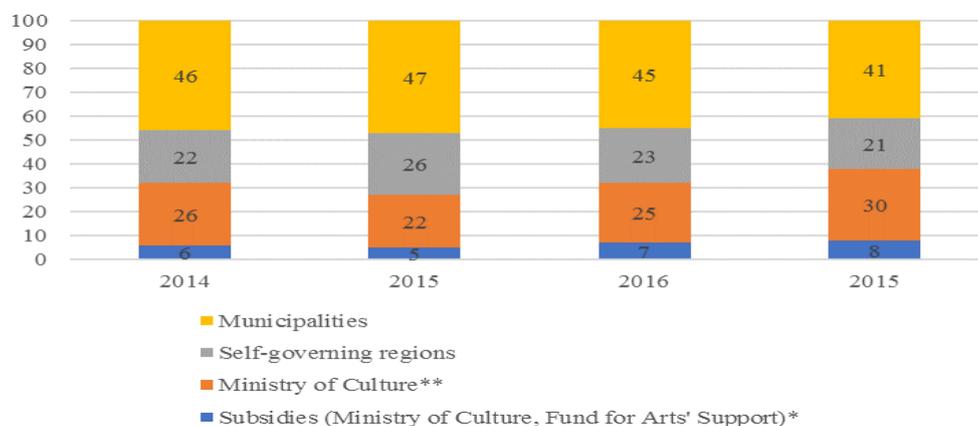
Local authorities cooperate with central state administration bodies (especially the Ministry of Culture), other state administration bodies (e.g. monument offices) and authorities of higher territorial units in fulfilling their competences in the field of culture.

From the strategical point of view, the cultural development is usually planned as a part of Economic and Social Development Plan (an official obligatory strategical document of municipalities with more than 2 000 inhabitants). Municipalities do not have the official obligation to prepare a separate policy paper focused on culture and its development. Nevertheless, approximately 50 municipalities of the total number of 2927 municipalities in Slovakia have prepared such a document, of which the vast majority are district towns.

In Slovakia, as in many other countries, public budgets are the key sources of culture funding. The largest part of local government expenditure on culture are transfers to budgetary and contributory organizations providing cultural services (e.g. local museums, galleries, libraries etc.). Other important source of financing cultural services are the subsidies provided for the specific aims directly to the established entities by the local municipality. The umbrella of subsidies mechanism is a Fund for the art support administered by the Ministry of Culture of the Slovak Republic.

The other expenses of local municipalities in culture include financing of cultural events organised or co-organised by the municipality; expenses on maintenance of cultural objects owned by the local municipality; expenditure on the protection and revitalization of the cultural heritage managed by the city and contributions to the cultural activities of natural and legal persons, including citizens' initiatives, in the form of grants.

Although, the total budget of local and regional authorities represents only about 16% of the total public budget, local and regional governments are an important player in terms of culture funding, as about 40% of public expenditures on culture come from local and regional governments. In total, municipalities spend about 3.75 % of their budget on culture (in 2018). Of the public expenditures of state budget on culture with a direct impact on the regions and towns, the largest share is represented by municipal budget expenditure - accounting for almost 50% of total expenditure (figure 2).



\* selected programs with a direct impact on regions

\*\* only expenditure with impact on regions included (excluding institutions with nationwide scope)

Figure 2: *Volume of culture expenditure from public sources with a regional and local impact (EUR million) and the ratio of these expenditures.*

The ability to finance the cultural activities and their extend depends on the municipality's own resources. That is why very important is a multi-source financing, e.g. subsidies from the Fund of Arts' Support, program Let's renew our house, European structural funds and European Commission programs (e. g. Creative Europe 2014-2020 Program, Europe for Citizens Program 2014-2020, INTERREG VC Central Europe 2020 Program, Program INTERREG VA Slovak Republic – Austria, Integrated Regional Operational Program (IROP) 2014-2020), subsidies from the budget chapter of the Office of the Government of the Slovak Republic; Rural Development Program 2014-2020 of the Ministry of Agriculture (Rural Tourism) and various grant schemas from the foundations or private companies.

## DATA AND METHODOLOGY

The research of cultural policy financing in the Slovak Republic is underdeveloped at national, regional and at local level. In the paper, we try to cover one of the gaps in this research and we pay attention especially to the local level of financing cultural services and explore the differences in three Slovak cities - Košice, Banská Bystrica, Banská Štiavnica.

Each city is specific. Košice is a real creative and culture city established on the great success of European Capital of Culture. Banská Štiavnica is rich of historical and cultural UNESCO heritage. Banská Bystrica is a city associated with many historical milestones important for the forming Slovak history, but the current level of local cultural policy is based mainly on the activities of volunteers and non-profit organisations, the support from the local municipality is low in comparison to other Slovak cities. Table 1 below show the main characteristics of the cities in order to compare their potential and projects for cultural, economic, sport and natural resources.

| City / District | Inhabit. City / District | Cultural resources  | Natural resources   | Labels / Projects   |
|-----------------|--------------------------|---|---|---|
| Košice          | 239,000/<br>390,000      | Medieval / Renaissance centre<br>Army and industry wastelands re-used for cultural sector<br>Steel and digital industries<br>Lots of cultural institutions and associations<br>Important hockey team and other sports<br>Marathon | National park close by<br>Wine and natural Unesco sites tourism nearby<br>Tokaj wine close by | European Capital of Culture (ECoC) in 2013<br>Unesco Creative City label for media art<br>Unesco sites close by, including Tokaj wine<br>Project : Continuing ECoC progress |

|                  |                    |  |   |  |
|------------------|--------------------|--|---|--|
| Banská Bystrica  | 76,600/<br>122,200 | Medieval/Renaissance city centre<br>Lots of cultural institutions and associations<br>Industries and services<br>Higher education<br>Cultural, sport and thermal tourism | Unesco and mining sites nearby,<br>Hron river, parks<br>mountain national park nearby                           | National city park<br>Project: Unesco label for a hammer mill                            |
| Banská Štiavnica | 10,100/<br>16,600  | Medieval/Renaissance Technical monuments (silver mine to visit)<br>Lots of cultural and digital activities<br>Higher education   | Countryside and lakes (artificial)<br>Rural and industrial tourism<br>Agriculture, forestry and mining industry | Unesco label for the city and around<br>Risk of too many tourists (around 60 000 / year) |

Table 1 *Main characteristics of the selected cities*

The research has been based on review of secondary data - statistics, urban reports, strategic development programmes of municipalities, accounting reports of the cities as well as on primary data that were collected during the study visits in each city by interviews with the representatives of cultural and creative industries and representatives of municipalities.

## CULTURE POLICY AND ITS FINANCING IN THE SELECTED SLOVAK CITIES

### *Košice*

Košice is the second biggest city of Slovakia, situated in the eastern part of the country, only 20 km from Hungary, 80 km from Ukraine and 90 km from Poland. The city is an administrative centre of the Košice Region (NUTS 3 level) divided into four districts. The city of Košice covers an area of 243.7 km<sup>2</sup>, with 239,141 inhabitants. Population density is 1008.9 persons per km<sup>2</sup>. Košice is a seat of many public administration offices including local authorities, state administration offices and consulates. A network of banking and financial institutions, universities, research and development institutes, administrative and cultural facilities, hospitals and other services have been built in Košice.

Košice is an old city with a rich culture and historical heritage. St. Elizabeth's church, with its landmark dome is the easternmost Gothic cathedral in Europe. The city's historical centre is the largest urban heritage reservoir in the country from 1983 (Main street). Some of the most famous monuments are St. Elizabeth's Cathedral, St. Michal's Chapel, St. Urban's tower, the State Theatre, the Levoča House, Andrassy's Palace and the Immaculata Statue (The Plague Column).

Košice includes 791 register of lesser national cultural monuments. It contains various kinds of monuments as churches, castles, city fortification, bourgeois houses, monasteries, calvary, cemeteries, brewery, flat houses, barracks, factories, university building, etc. The largest group of monuments is presented by the burgher houses (270 items, 34% of all monuments), it is followed by houses (123 items), cemeteries (58 items), city fortification (23 items), calvary (17 items). By the prevailing style

that are, the most abundant among the monuments are classicism (17.83%), eclecticism (15.04%) and renaissance (11.63%). The municipality is an owner of 97 monuments (12.3% of total number). All monuments are protected by the special rules defined by the state and is why the process of their reconstruction as well as exploitation can be protracted.

The importance of monuments in Košice for tourism is strongly associated with the presence of 10 of the 15 Slovak cultural sites listed by UNESCO in the region or close regions, including the old wooden churches, Spiš castle (the largest castle in the middle Europe), Bardejov city, famous wine region Tokaj, extraordinary caves and primeval forests.

Košice presents a good example of a city that systematically maps and exploits cultural potential in its development. In 2013 Košice was the European Capital of Culture in cooperation with French city Marseille. From 2017 Košice is a member of UNESCO Creative Cities Network in field of media art and announced as a UNESCO Creative City of Media Arts in 2018. (<http://www.cike.sk/sk/novinka/481-kosice-ziskali-miesto-v-sieti-kreativnych-miest-unesco-co-to-znamena-pre-mesto>; cit. 15. 10. 2018). In 2016 Košice became the European City of Sport. In 2019, Košice was a European City of Volunteering. In 2011 and in 2019 Košice hosted the Ice Hockey World Championship with Bratislava. In 2017, Košice was included in the Creative Cities Monitor 2017.

The financial support of cultural and creative development in Košice is mainly the responsibility of the City of Košice. The funds for this purpose are incorporated into the program of municipal budget - The city of culture and sport and are presented in table 2.

| Expenses for the program - The city of culture and sport |                       |                       | Year on year change   |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Year   | Real current expenses | Real capital expenses | Real current expenses | Real capital expenses |
| 2014   | 5 182 035,00 €        | 651 276,00 €          |                       |                       |
| 2015   | 5 256 921,00 €        | 1 432 078,00 €        | 1,45%                 | 119,89%               |
| 2016   | 5 742 013,00 €        | 3 890 690,00 €        | 9,23%                 | 171,68%               |
| 2017   | 5 778 795,00 €        | 816 665,00 €          | 0,64%                 | -79,01%               |
| 2018   | 6 329 653,00 €        | 1 028 536 €           | 9,53%                 | 25,94%                |
| 2019<br>(Approved Budget)                                | 7 862 700,00 €        | 1 962 000,00 €        | 22,81%                | 101,38%               |
| 2020 (Plan)  | 11 701 000,00 €       | 5 858 000,00 €        | 48,82%                | 198,57%               |
| 2021 (Plan)  | 11 861 000,00 €       | 5 670 000,00 €        | 1,37%                 | -3,21%                |

Table 2 Expenses for the program - The city of culture and sport 2014 – 2021 (municipal budgets of Košice city)

Table 2 shows that the current expenses for the development of culture and sport in the city have increased during the whole researched period. The development of capital expenses fluctuates. In the planned budget for 2019-2021 was included the organisation of European Youth Olympic Festival in 2021, but the City of Košice refused to organise this event (it will be in Banská Bystrica). Probably, the

financial plan for 2019 and 2020, which is positive with higher investments in cultural and sport facilities, will not be fulfilled.

For the deeper analysis we present the structure of cultural expenses in 2018 (last available data), selected from the whole program The city of culture and sport, in table 3.

| Type of expenses  | Current expenses |                       |                 | Capital expenses |                       |                 |
|---|------------------|-----------------------|-----------------|------------------|-----------------------|-----------------|
|   | Approved budget  | Reality to 31.12.2018 | % of fulfilment | Approved budget  | Reality to 31.12.2018 | % of fulfilment |
| Subprograms of culture  |                  |                       |                 |                  |                       |                 |
| Support system of cultural development (grants and events calendar)                               | 237 200,00       | 233 800,00            | 98,6            | -                | -                     | 0               |
| Creative industry Košice, n. o. (operation of non-profit organisation)                            | 320 000,00       | 320 000,00            | 100             | -                | -                     | 0               |
| Cultural events (e.g. Košice day; Summer in Košice, cultural events in premises of ECC 2013, etc. | 209 033,00       | 195 140,00            | 93,4            | 20 000,00        | 18 102,00             | 90,5            |
| Event oriented at spiritual development (Festival of sacral arts)                                 | 15 000,00        | 14 839,00             | 98,9            | -                | -                     | 0               |
| Supporting activities in historical heritage (Reconstruction of monuments)                        | 42 850,00        | 39 597,00             | 92,4            | 227 150,00       | 88 712,00             | 39,1            |
| Support of culture infrastructure (ZOO Košice, Košice cultural centres, library)                  | 4 223 900,00     | 4 223 900,00          | 100             | 421 000,00       | 342 091,00            | 81,3            |
| Total   | 5 047 983,00     | 5 027 276,00          | 97,22           | 668 150,00       | 448 905,00            | 35,15           |

Table 3 Structure of cultural expenses in Košice city in 2018 (Final account of the city Košice in 2018)

In the structure of cultural expenses has a significant position the subprogram – Support of cultural infrastructure (84 % of the cultural budget). A great part of the cultural infrastructure was built during the preparation process for the ECC or during the year of governing in 2013 and because of the continuity of the project activities all created cultural premises are permanently maintained and used for the cultural events. The important position has also a non-profit organisation Creative Košice, which is a main actor in exploitation of creative and cultural potential in the city. Other kinds of expenses include the cultural events and maintenance of the monuments. The budget for the culture is one of the highest from the Slovak cities, but it is only 3.15 % of the whole budget of Košice city in 2018.

#### *Banská Štiavnica*

The town of Banská Štiavnica, the oldest mining town in Slovakia, was established in the 13th century, although evidence of mining dates to the late Bronze Age. The property's distinct form was created by the symbiosis of the industrial landscape and the urban environment resulting from its mineral wealth

and consequent prosperity. Banská Štiavnica, located in Central Slovakia, sits in the middle of a caldera. The town is located in the southern part of Central Slovakia in the protected landscape area Štiavnické vrchy. Banská Štiavnica is situated about 170 km northeast of Bratislava (access by expressway D1 / R1), 45 km southwest of Banská Bystrica and 160 km north of Budapest.

The town is constructed on a site of mineral exploitation. Its layout adapted to its difficult topography. The urban fabric is densest in the valley, around Trinity Square, and opens up towards the edges. The houses, mostly belonging to miners, are constructed on different levels and spaced out along the streets.

The town is an exceptional example of a medieval mining centre of major economic importance that pursued its mining activities until the Modern period and adopted a distinctive and characteristic form. With the end of the mining activities and the relocation of the Mining Academy, this city lost much of its *raison d'être* and as a result has become very vulnerable. The town has no preconditions for the emergence of large-scale industry, and houses are under a preservation order. After 1990, many factories had been closed one by one. At present, there are only small and medium sized enterprises but tourism together with the fact that its *genius loci* attracting creative people, have a huge potential.

The Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity is an outstanding example of an important mining settlement that has developed since the Middle Ages. The property's distinct form was created by the symbiosis of the industrial landscape and the urban environment resulting from its mineral wealth and consequent prosperity. Since 11. December 1993 Banská Štiavnica has been a UNESCO World Cultural Heritage site under the name: **Historic Town of Banská Štiavnica and the Technical Monuments in its Vicinity.**

Banská Štiavnica's historic architecture and engineering works have been well-preserved. There are 360 sites of historical art in the centre of the town – urban reservation area, 304 of which are registered as national cultural monuments. They include various kinds of monuments as churches, castles, bourgeois houses, miner's houses, monasteries, calvary, factories, university building, etc. Almost half of the monuments presented the bourgeois houses (151 items). The baroque style is the most prevailing with (88 objects – 29%), followed by the renaissance style (89 objects - 29%). More than 40 per cent of monuments are in the hand of citizens, 32% of monuments are owned by the public sector – state and local government.

Among historical monuments extensive complex of technical works, connected with mining and processing of polymetallic ores, can be found in the town and in its vicinity. Surviving components include shafts, tunnels, mining towers, a knocking tower, and a sophisticated water management system. The system of artificially built water reservoirs – ponds and collecting ditches – built in the

16th century and developed in the 18th century, served the needs of the mining industry and provided fresh drinking water for the town. It was the most modern work of its type until the 19th century. After this time, the exhaustion of mineral resources has led to decline in the historic urban structure, the water management system, and much of the mining infrastructure.

There are several standard and other cultural and creative institutions in Banská Štiavnica. The standard/municipal institutions include, in particular, Municipal Cultural Centre, Cinema Akademik and Municipal Library. The City Cultural Centre has an important meeting function, its premises are mainly used by third sector organizations for cultural and social activities. Akademik cinema is one of the most visited cultural buildings. Thanks to the stability of the projection offerings, visitors can choose from a wide range of different genres and titles. Beside its main activity, the library regularly prepares and co-organizes different events. In 2018, there was in total 93 events, of which 65 were educational (especially for children and youth) and 28 were cultural and social events.

The municipality itself acts as a coordinator and supporter of many events through its specialized departments and their action plans. Cultural and creativity services are provided year-round or seasonally (especially in summer) by the municipality in partnership with the private and non-profit sectors. A distinctive policy of the municipality in recent years is to attract and engage more domestic people into the activities they have carried out and to transfer the town's history to the present days through non-traditional activities focusing on children and youth (various exhibitions, competitions, theatre performances). Traditional and sought-after events include Living Chess, Forgotten Crafts and Salamander Days, which end the cultural summer in Banská Štiavnica.

The town's budget is not big one with expenditure reaching 9 462 938 euros in 2018. Within the program Culture the spent budget was 335 774 € (Table 4). However, support and direct funding for culture and creative activities is hidden also in other sub-programs such as Promotion and marketing, Citizen services, Education, etc.

| Type of subsidies  | Grants (Reality to 31.12.2018) | Capital grants (Reality to 31.12.2018) |
|--|--------------------------------|--|
| Subsidies and grants from Ministry of Culture            | 140 083,00                     | -                                      |
| Subsidies from Fund for Arts Support                     | 134 106,00                     | -                                      |
| Subsidies from Higher Territorial Unit                   | 3 960,00                       | -                                      |
| Subsidies from the Office of Government                  | 45 104,00                      | -                                      |
| Subsidies from the Organisation of World Heritage Cities | 10 360,00                      | -                                      |
| Subsidies from the Audio-visual Fund                     | 2 218,00                       | 13 050,00                              |
| Total  | 335 831,00                     | 13 050,00                              |

|                                 |            |
|---------------------------------|------------|
| Subprogram - Culture (expenses) | €          |
| Municipal cultural events       | 134 035,00 |

|  |            |
|--|------------|
| Grants to support culture                    | 4 750      |
| Cultural infrastructure                      | 133 074,00 |
| Repair and maintenance of cultural monuments | 63 915,00  |
| Total  | 335 774,00 |

Table 4 *Grants and expenditures in program Culture (Final account of Banská Štiavnica municipality 2018)*

The table 4 presents that Banská Štiavnica is able to cover all costs for the cultural activities from grants. It is influenced by the localisation of the UNESCO heritage in the city, as well as gained subsidy for the preparation and realisation of project – Capital of Culture supported by the Fund for Arts Support. The share of cultural expenses on the whole budget of Banská Štiavnica is 35.61 %. The structure of the cultural expenses is very similar to Košice.

#### *Banská Bystrica*

Banská Bystrica is the sixth largest city in Slovakia, the regional capital and the cultural and economic center of central Slovakia. Banská Bystrica is situated in the northwest of the Banská Bystrica Region, in the Zvolenska Lowland, in the valley of the river Hron, between the Kremnické and Starohorské Mountains and Polana. The city of Banská Bystrica is also known as the "City under the Urpin". Urpin with a height of 510 m above sea level is in the catastral area of Banská Bystrica, near the center. The city has 42 offices and various institutions of regional and district importance. Due to its central location, the city is the seat of some institutions with nation-wide competencies, such as the Financial Administration of the Slovak Republic, Slovak Post, Industrial Property Office of the Slovak Republic, Slovak Environment Agency, State Nature Conservancy of the Slovak Republic, Forests Slovakia. Most economically active inhabitants work in public administration, defense and in the education, retail and health sectors, that is, in the services sector. The renewed historical center, new modern construction and beautiful surrounding countryside offer a wide range of opportunities for sports, hiking and recreation.

According to the Monuments Board of the Slovak Republic, in the city of Banská Bystrica are 336 monuments. The city of Banská Bystrica was one of the first cities in Slovakia, declared in 1955 as an urban conservation area. Part of the urban conservation area is the city castle of Barbakan, the square SNP with the churches of Our Lady and St. Cross, the Old Town Hall, Matej's house and the remains of the city fortifications, the Marian Column and the leaning clock tower. The square is bordered by opulent burgher houses and churches with historical value. The SNP Memorial with the surrounding area was declared a national cultural monument in 1982. The culture of the city is completed by its architecture and other sacral and technical monuments. In the Tihanyi mansion in Radvaň, there are exhibitions of the natural science department of the Central Slovak Museum. The historical museums are in Thurzo's House on SNP Square and Mathew House. Rare artworks are preserved in three State

Galleries. In the city is situated 160 historical monuments and almost one third is in hands of the municipality (45 monuments).

The city is supposed to have over 100 historical events. In 2018, there were 178 events, including traditional events, in front of 123,408 spectators. The most important cultural event in Banská Bystrica, based on traditions and folk culture, is the Radvan Fair. It is included in the representative list of intangible cultural heritage of Slovakia and this year will be held 363rd year. Part of Radvanský Fair is a traditional craft market, wide range of fairy-tale gastronomic specialties and in recent years an ancient market that is reminiscent of the appearance of Radvanski's yoke in the past.

Culture in Banská Bystrica is financed from three sources - the local budget, the BBSK budget and the state budget through the Ministry of Culture of the Slovak Republic. Because we aim at the financing of culture from the municipal budget, the table 5 provides an overview of the expenditures on the culture from the local authority.

| Culture     | Reality |         |         | Budget (plan) |         |         |
|-------------|---------|---------|---------|---------------|---------|---------|
|             | 2016    | 2017    | 2018    | 2019          | 2020    | 2021    |
| Expenditure |         |         |         |               |         |         |
| Current     | 423 348 | 425 993 | 491 721 | 568 482       | 543 881 | 543 881 |
| Capital     | 5 956   | 27 916  | 374 016 | 185 000       | 0       | 0       |

| Program Culture in 2018  | Current expenses | % of fulfilment | Capital expenses | % of fulfilment |
|--|------------------|-----------------|------------------|-----------------|
| Cultural heritage and traditions (cultural summer, Radvan Fair, Christmas) | 228 964,00       | 93,62           | -                | -               |
| Cultural events  | 107 342,00       | 86,61           | -                | -               |
| Reconstruction and maintenance of monuments                                | 42 255,00        | 87,46           | 374 016,00       | 88,78           |
| Grant system for the cultural support (including municipal theater)        | 113 160,00       | 99,26           | -                | -               |

Table 5 Culture expenditure in Banská Bystrica in Euro (Program budget of Banská Bystrica for years 2019 – 2021, 2018)

The highest share of current expenses is dedicated to the cultural events (traditional and new ones). There absent the expenses for the cultural infrastructure, what is caused by the fact that there are no cultural premises in hands of city. The "Worker House" (the place for cultural events) currently used for the cultural events is administered and managed separately from the cultural budget till 2019 because its financing from the European structural funds. The cultural expenses create only 0.85 % of the whole budget.

To compare the financing of culture in the researched cities we elaborate table 6. In the table 6 it is evident that for the cultural development is crucial to build and maintain the cultural infrastructure. In case – Košice and Banská Štiavnica the high share of funds belongs to this category of expenses. It is a hard infrastructure that is necessary to realise the soft cultural activities – cultural events. In Banska Bystrica, the role of city as key actor in cultural development is transferred to the non-profit and

private organisations by providing grants and subsidies. The lowest share of funds for reconstruction of monuments is in Košice, even the municipality owns two times more monuments as Banská Bystrica. The capital expenses for culture were reported only in Košice and Banská Bystrica.

| City             | Expenses         |         | Grant support of culture | Cultural infrastructure | Cultural, spiritual events | Reconstruction of monuments | Total        |
|------------------|------------------|---------|--------------------------|-------------------------|----------------------------|-----------------------------|--------------|
| Košice           | current expenses | in Euro | 233 800,00               | 4 543 900,00            | 209 979,00                 | 39 567,00                   | 5 027 246,00 |
|                  |                  | in %    | 4,65%                    | 90,39%                  | 4,18%                      | 0,79%                       | 100,00%      |
|                  | capital expenses | in Euro | -                        | 342 091,00              | 18 102,00                  | 88 712,00                   | 448 905,00   |
|                  |                  | in %    | 0,00%                    | 76,21%                  | 4,03%                      | 19,76%                      | 100,00%      |
| Banská Štiavnica | current expenses | in Euro | 4 750,00                 | 133 074,00              | 134 035,00                 | 63 915,00                   | 335 774,00   |
|                  |                  | in %    | 1,41%                    | 39,63%                  | 39,92%                     | 19,04%                      | 100,00%      |
| Banská Bystrica  | current expenses | in Euro | 113 160,00               | 0                       | 336 306,00                 | 42 255,00                   | 491 721,00   |
|                  |                  | in %    | 23,01%                   | 0,00%                   | 68,39%                     | 8,59%                       | 100,00%      |
|                  | capital expenses | in Euro | 0                        | 0                       | 0                          | 374 016,00                  | 374 016,00   |
|                  |                  | in %    | 0                        | 0                       | 0                          | 100,00%                     | 100,00%      |

Table 6 Comparison of cultural expenses in selected cities in Košice, Banská Štiavnica and Banská Bystrica

## CONCLUSIONS

The system of financing culture by the local municipalities depends strongly on their financial capacity. The development of culture belongs to the municipal original competences, so there are no transfers from higher administration level. However, there are numerous possibilities to gain additional funds from the national and regional grant schemas and subsidies system, European structural funds or programs of European Commission, but also from private grant schemas financed by successful enterprises.

The main idea of the paper was to compare the role of culture financing as a potential driver of local cultural development and characterise differences between cities. Referring to research results, Banská Štiavnica provides the high amount of funds for culture in ratio to the total budget of the city. Moreover, the city is able to cover all cultural expenses from the subsidies and grants. Košice is a city that spent the highest share of cultural expenses for maintenance and development of cultural infrastructure. It is caused also by need to realise these activities as obligation raised from the ECC. The lowest interest in cultural development was confirmed in Banská Bystrica. Although, the city has a great cultural and creative potential, there absents some strategical and financial support of culture development. This is declared also by ambition of representatives of Banská Bystrica to organise the European Youth Olympic Festival in 2022 instead of Košice, so the strategical role started to play sport.

The research helps us identify also the main challenge in financing of culture at the local level. Because the fact that the financing culture is an original competence of the city, it is on the city representatives' decision if and how intensive support of culture is implemented. If the city includes some exceptional potential (UNESCO heritage, ECC, quality and diversified offer in culture etc.), there is much higher interest in the potential exploitation from the economic and social reasons (Sotiriadis, 2017). On the other hand, the culture of the city can be a source of competitive advantage(s) in any city as well as main factor of attracting the new inhabitants, investors and entrepreneurs, what confirms a lot of international researches (Hansen, Niedomysl, 2008; Martin-Brelot, Grossetti, Eckert, Gritsai, Kovács, 2010; Argent, Tonts, Jones, Holmes, 2013; Faggian, Comunian, Cher Li, 2014; Khodabandehloo, 2014). So, we recommend to the Slovak cities to realize the cultural policy based on the deep analysis of cultural and creative potential and to identify the possibilities of its exploitation as one of the key or partial development strategies. If the culture can become a driver of local development, the local government should support it – financially, strategically as well as politically, not only in limited way as is usual in Slovak cities. Moreover, the success of the development depends on the quality management and skilled experts involved (case of Košice and Banská Štiavnica) in all stages, including the ability to achieve funds from various additional sources.

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# **SOCIAL MEDIA AND INTERNATIONAL MARKETING: A SYSTEMATIC REVIEW**

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## **ABSTRACT**

There is an increasing trend of research papers in social media and international marketing. Authors reviewed 22 articles between 2012 and 2020. The findings show that recent research has focused on three research themes: Use of social media in social networking; social media and branding; and social media advertising. Academics are advised to address under-research fields. Five possible further research areas in the social media and international marketing are proposed: factors affecting the use of social media marketing, mechanism between international brand and user through social media; cultural factors in the use of social media marketing; consequences of social media marketing and new analytic methods. This review paper fills a literature gap in the research on reviewing social media practices in international marketing.

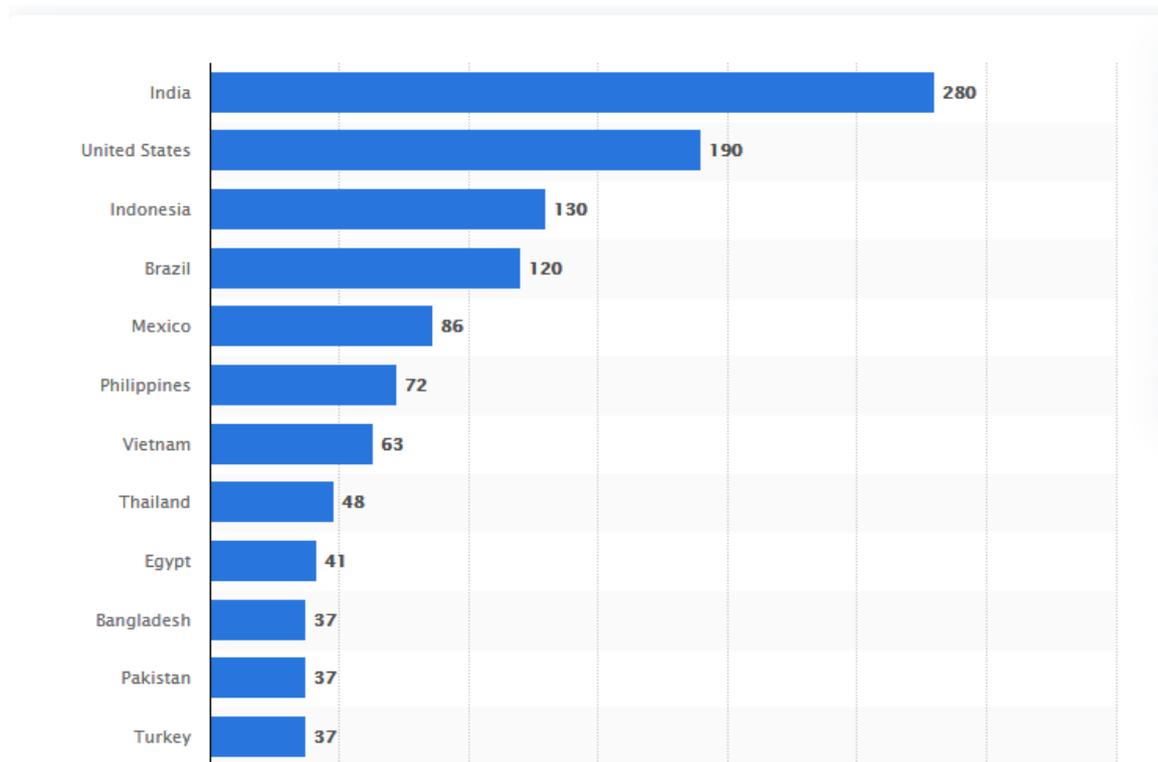
*Keywords:* Social media; international marketing, systematic review

*We declare that there is no potential conflict of interest*

## **INTRODUCTION**

The objective of this paper is to examine the past research trend related to social media and international marketing and suggest future research area directions.

The use of Social media is always an agenda for almost every business today worldwide (Kaplan and Haenlein, 2010). Social media 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 and Haenlein, 2010, 61). Facebook has become the leading social media tool over the world and it has 2.5 billion monthly active users as of December 2019 (Statista, 2019). Youtube is the first runner-up with more than 1 million active user and Instagram is the second runner-up with more than 600 million users (Hanlon, 2019). India has 280 billion Facebook users, followed by United States, 190 million (Figure 1) (Statista, 2020). As such, today marketers would use social media to reach their target audience globally. We synthesis past papers, address emerging issues and provide future research areas.

**Figure 1** Users of Facebook worldwide (Source: Statista, 2020)

Digital media is a media that can be read by a computer or machines. The most prominent use of digital media is undoubtedly social media. Social media is defined in Merriam Webster Online Dictionary (2004) as “forms of electronic communication through which users create online communities to share information, ideas, personal messages, and other content”. In the age of Web 2.0, reduced costs for online data storage enable the creation of user-generated spaces with diverse set of opportunities for the construction of virtual social networks. (Obar & Wildman, 2015) In the Digital 2020 report written by a global advertising agency, up to January 2020, there are 3.8 billion active social media users, which made up 49% of the world’s total population. (We Are Social, 2020) Over one-third of the time people spent online is on using social media. Social media provide multi-national companies with opportunities to start conversation with global audience, and even organize online promotional activities, gone viral world widely through social media under celebrity endorsement. (Kwon, 2019) Apart from the influence of celebrities and key opinion leaders, successful social media campaigns usually based on authentic stories, and engagement works on reciprocity principle, in which participants can earn public praise for their participation (Weiner, 2019).

Interactivity is defined as "a media’s potential ability to let the user exert an influence on the content and/or form of the mediated communication" (Jensen, 1998, p. 201), which is affected by the direction of the communication, and the degree of control users had on the exchange. The design of social media sites are inherently interactive, which allow users either to interact with content provided by

other users, or to interact via the creation of their own content. There are three types of uses as categorized by Guo and Saxton (2014), among 750 tweets randomly collected from 188 American advocacy organizations, almost 69% of are in the category of "information" in form of one-way communication; almost 20% of the randomly selected tweets were "community" type messages, these messages were partially interactive which facilitated the creation of an online community; the remaining nearly 12% of tweets were "action" focused, meaning that they were messages that attempted to get followers to "do something", therefore they are highly interactive (Guo & Saxton, 2014).

Social media platforms carry different features, for example, Twitter limits each tweet to 280 characters (Gligorić et al., 2018), Instagram is image- oriented (Carrasco-Polaino et al., 2018), YouTube focus on videos (Arthurs et al., 2018), while Facebook incorporate functions of several. The number of reactions available for audience also varies, such as different emoticons of like, love, sad, wow, angry, funny and other themed clicks on Facebook (Hutchinson, 2020); like and dislike for YouTube (Shoufan & Mohamed, 2017); and a heart icon for Twitter and Instagram (Gorrell & Bontcheva, 2016). Most platforms enable the use of hashtag (#) to increase visibility when users are looking for information of related keywords (Scott, 2018), so that the content posted can receive higher engagement.

Sheth (2020) points out international marketing strategies might need to be modified based on the effect of social media. He proposes a typology of international marketing that global-micro context is a backdrop of social media in world business (Sheth, 2020). It is a good time to look back what we have gone so far and look ahead future research directions.

#### *Media Richness Theory*

The richer the media, the more effective it is. It offers an explanation why social media sites containing images and videos rather than text in order to have richer information (Daft and Lengel, 1986).

This study asks the following questions:

- 1) What are the main research themes in social media and international marketing?
- 2) What is the future research agenda regarding social media practices in international marketing?

## **METHODOLOGY**

This systematic literature review should be consisted of three steps: a) identification of articles, (b) selection and description of the sample and (c) systematic analytical work (Mialon & McCambridge, 2018).

All articles from 2010-2020 in five major journals of the related theme namely Journal of International Marketing, Journal of World Business, International Business Review, International Marketing Review, and Global Strategy Journal were screened, with 4 articles were identified relevant (Table 1).

The starting year 2009 is chosen because social media officially started around year 2008 and research coming out a few years later. A comprehensive literature search will be carried out using six combinations of keywords: international marketing and social media; international marketing and digital media; global marketing and social media; global marketing and digital media; global market and social media; global market and digital media. The keywords combinations are chosen in order to cover more articles first for initial review. To conduct the search, four databases, ProQuest, Science Direct, Scopus, and Business Source Complete were used. Filters were applied in these databases to only peer-reviewed articles, in academic journals published in English.

**Table 1 Papers on Major Journals (Source: authors)**

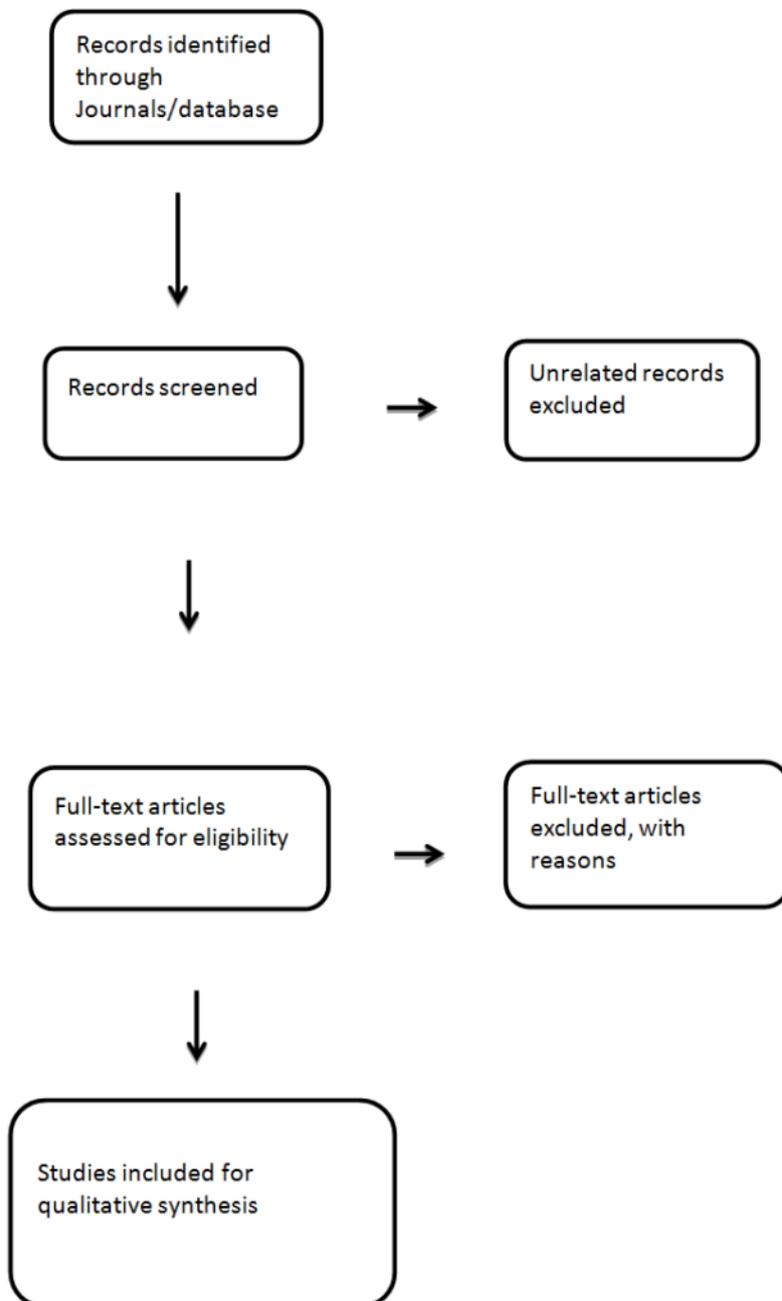
|    | Major Journals                     | Relevant | Duplicated | New Entries | Date of Search |
|----|------------------------------------|----------|------------|-------------|----------------|
| 11 | Journal of International Marketing | 3        | 0          | 3           | 7/7/2020       |
| 22 | Journal of World Business          | 0        | 0          | 0           | 7/7/2020       |
| 33 | International Business Review      | 0        | 0          | 0           | 7/7/2020       |
| 44 | International Marketing Review     | 1        | 0          | 1           | 7/7/2020       |
| 55 | Global Strategy Journal            | 0        | 0          | 0           | 7/7/2020       |

The review was conducted during the period of 7-21 July 2020. A total of 116 articles published within 2009 to 2020 were collected, as social media is a new topic that emerged in around the past decade. The numbers of results yielded, relevant articles, duplication, new entries and exact date of search are recorded (Table 2). In the coming research process, results will first be screened based on titles, abstracts, and keywords, for ambiguous cases, the researcher read the full text to decide eligibility. Reviewers will look for the places where the targeted keywords were mentioned throughout particular articles to see whether it fits the selection criteria of international/ global study targeting more than one country either intra or inter continent, and discussed social media marketing. Papers which only vaguely mentioned the targeted keywords, citations or author biographies should be ruled out. PDF files of all the selected text will be downloaded for later checking and further reference. If there is a dispute between two researchers, discussion between coder are encouraged to resolve the discrepancy (Krippendorff, 2013). A third researcher shall be invited to join the assessment and final decision is made based on the discussion among the team members. The whole process is presented in figure 2.

**Table 2 Papers on major databases (Source: authors)**

| Keywords                               | Database                 | Results | Relevant | Duplicated | New Entries | Date of Search |
|--|--------------------------|---------|----------|------------|-------------|----------------|
| international marketing, social media  | Business Source Complete | 213     | 20       | 4          | 16          | 8/7/2020       |
|  | Scopus                   | 15      | 7        | 2          | 5           | 8/7/2020       |
|  | Science Direct           | 132     | 4        | 1          | 3           | 8/7/2020       |
|  | ProQuest                 | 1209    | 34       | 9          | 26          | 9/7/2020       |
| international marketing, digital media | Business Source Complete | 20      | 4        | 2          | 2           | 9/7/2020       |
|  | Scopus                   | 2       | 1        | 1          | 0           | 9/7/2020       |
|  | Science Direct           | 17      | 1        | 0          | 1           | 9/7/2020       |
|  | ProQuest                 | 197     | 7        | 1          | 6           | 16/7/2020      |
| global marketing, social media         | Business Source Complete | 43      | 10       | 2          | 8           | 16/7/2020      |
|  | Scopus                   | 9       | 2        | 1          | 1           | 16/7/2020      |
|  | Science Direct           | 85      | 8        | 3          | 5           | 16/7/2020      |
|  | ProQuest                 | 425     | 8        | 1          | 7           | 16/7/2020      |
| global marketing, digital media        | Business Source Complete | 8       | 0        | 0          | 0           | 20/7/2020      |
|  | Scopus                   | 3       | 0        | 0          | 0           | 20/7/2020      |
|  | Science Direct           | 10      | 1        | 0          | 1           | 20/7/2020      |
|  | ProQuest                 | 75      | 1        | 0          | 1           | 20/7/2020      |
| global market, social media            | Business Source Complete | 20      | 4        | 1          | 3           | 20/7/2020      |
|  | Scopus                   | 26      | 2        | 1          | 1           | 20/7/2020      |
|  | Science Direct           | 614     | 4        | 3          | 1           | 20/7/2020      |
|  | ProQuest                 | 1249    | 24       | 1          | 23          | 21/7/2020      |
| global market, digital media           | Business Source Complete | 10      | 0        | 0          | 0           | 20/7/2020      |
|  | Scopus                   | 6       | 0        | 0          | 0           | 20/7/2020      |
|  | Science Direct           | 116     | 0        | 0          | 0           | 20/7/2020      |
|  | ProQuest                 | 343     | 1        | 0          | 1           | 20/7/2020      |

Total: 116 articles collected

**Figure 2 Process of systematic review** (Source: authors)

## DISCUSSION

### RESEARCH THEMES

I propose a typology of the current research themes listed as follows (Figure 3):

**Figure 3 Research themes**

|   |   |
|---|---|
| Macro context   | Micro context   |
| Antecedents and consequences of digital media marketing         |   |
| International Business<br>Crisis Management<br>Cultural factors | Promotional tool<br>Relationship tool<br>Consumer behaviour (e-WOM)<br>Branding |

(Source: authors)

There are three existing research themes: Use of social media in social networking; social media and branding; and social media advertising. They have a common idea is that social media is a tool that could be useful in international marketing. The existing research themes are biased on the micro side of the story.

#### *Social Networking*

Social media firstly used as a personal social media platform to connect friends. Companies are increasing use social media in commercial use to maintain customer relationship (Gao et al., 2018). Social networking is an important activity in international trade (Puthusserry et al., 2018). It contributes to get updated international market and customer information. Social networking activities in form of social media context might be a part of corporate Social capital (Ryan et al., 2019; Mulvery et al., 2019).

#### *Social Media advertising*

Social media is used as a promotional tool. Kim et al. (2018) investigate an effect of social media campaign on brand popularity. Johnson et al. (2018) examines behavioural implications of social media advertising. In order to be success in social media advertising, network capability, image transferability and personal extensibility are important factors (Okazaki and Taylor, 2013). The use of social media in emerging markets represents the global-micro context (Sheth, 2020; Oyedele abd Firat, 2020). Electronic word of mouth and opinion leadership are interrelated to international marketing advertising (Sheth, 2020; Akdevelioglu and Kara, 2020). Nowadays, social media marketing strategies is a dominant promotion strategy (Haneef and Ansari, 2019). Social media becomes a norm in international marketing strategy (Berthon et al., 2012). Some studies on the use of social media of political leaders (Peres et al., 2020).

#### *Branding and digital media*

Social networking sites have association with global customer culture. Global brands develop its ecosystem to entertain their customers (Ozsomer, 2019). It might through social media postings which should be attractive, customized and interactive (Lin et al., 2017). At the end, the global brand could

achieve certain level of brand popularity (Kim et al., 2019). There is an effect of social value (through social media participation) on brand equity. It is stronger for Chinese customer (Jiao et al., 2018).

## **FUTURE RESEARCH AGENDA**

There are seven emerging research fields on social media and international marketing.

### *Cultural factors*

Is there any impact on cultural factors of social media advertising usage? (Alshboul et al., 2019) Individualism/collectivism and masculinity/femininity dimensions are possible moderating factors.

### *Consequences of digital media marketing*

The consequences of social media advertising could be trust, customer commitment, sales performance, brand loyalty and brand awareness (Mahmoud et al., 2020).

### *New analytic methods*

Previous research has relied on traditional methodologies such as content analysis and structural equational modelling. Researchers could consider analysing images and/or pictures (emoji) in addition to the responses in survey.

### *Digital media and international marketing strategies*

Mahmoud et al. (2020) explore a relationship between social media resources and export importance.

### *Digital media crisis*

Companies face a lot of risks concerning customer privacy and customer data linkage.

### *Factors affecting the use of digital media marketing*

Knowledge of the competition, brand awareness, customer's preferences and cultural measures are possible factors affecting the use of social media advertising (Eid et al., 2020). Mediating factor is attitude toward social media advertising. Moderating factors are credibility and infotainment (Johnston et al., 2018).

### *Linkage of international brand and user*

Digital media is used in the process of creating linkage between brand and individual customer (Gao et al., 2018). What is the underlying mechanism?

## **CONCLUSION**

This study is only a preliminary attempt to address this topic. However, it has successfully answered the two research questions. There are three existing research themes: Use of social media in social networking; social media and branding; and social media advertising. More theoretical support is needed. There are seven suggested future research themes: factors affecting the use of digital media marketing, mechanism between international brand and user through digital media; cultural factors in

the use of digital media marketing; digital media and international marketing strategies; consequences of digital media marketing, digital media crisis and new analytic methods.

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## **BOOK OF CONFERENCE ABSTRACTS**

# THE IMPACT OF PERSONAL CHARACTERISTICS ON THE CONSUMER CHOICE BETWEEN DONATION TO CHARITY AND PURCHASE OF CAUSE-RELATED PRODUCT

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## ABSTRACT

Charity support behaviour is widely appreciated in modern societies. The interest in this topic is also encouraged by charity organizations which are constantly looking for ways of attracting more support for their sponsored charity types and projects. However, attracting donors' attention to charity projects requires knowledge of their personal characteristics. Numerous authors agree that personal characteristics have the major influence on general consumer attitudes, which in turn determines their involvement in charitable activities (Bennet, 2003; Proenca and Pereira, 2008).

Prior studies suggest, that altruism, hedonism and materialism are influencing donors' charitable intentions (Adomaviciute *et al.*, 2016; Andreoni *et al.*, 2015; Goldsmith and Clark, 2012; Subrahmanyam, 2004; Bennett, 2003; Strahilevitz and Meyers, 1998), however only altruism has received wider attention in research. The critical question is whether the personal characteristics (hedonism, altruism and materialism) differently impacts the most analysed types of charity related behaviour: direct donation to charity and purchase of cause – related product. Previous studies did not analyse this relationship.

The objective of this study is to investigate how donors' personal characteristics (hedonism, altruism and materialism) are influencing consumer choice between intention to donate to charity and intention to purchase cause-related product. The study included two steps: a pilot study and the main quantitative study. Online survey and non-probability (convenience) sampling were used for the main study. This study is based on a survey of 211 respondents from Lithuania.

Research results confirmed the positive impact of altruism on the intention to donate to charity as well as purchase of cause-related product. However, this relationship was stronger in the case of direct donation to charity. The positive impact of hedonism was confirmed only for the intention to purchase cause-related product. The impact of materialism was not confirmed.

The analysis enriches a scientific knowledge gap in the consumer choice between donation to charity and purchasing cause-related product. Most researches analyse only one of behavioural cases, that is: which factors determine either the donation to charity, or consumer intention to purchase cause-related product, though the two behaviours include certain similarities. This study provides new

insights into the knowledge about similarity between the donation to charity and purchasing cause-related products, confirming the importance of altruism in both instances.

The contribution towards charitable donations, including cause-related marketing, management is that there are specific person-based variables to consider when designing campaigns.

The limitation of this study is the scope (one country based) of the sample, which does not allow broad generalizations. Therefore, it is recommended for the future research to test and compare the results of the proposed research model in other countries.

*Keywords: altruism, cause-related product, charity, donation, hedonism, materialism.*

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## FOREIGN EXPERIENCE IN WASTE MANAGEMENT

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### ABSTRACT

It is proposed to use in our country a modern method of landfill disposal using the natural bioreactor method, which is implemented in ecologically oriented countries such as the USA, Sweden, Great Britain, France and Italy. Domestic engineering and technology, the level of design and construction business are quite sufficient to successfully implement the creation of bioreactor landfills and manage their work. An action plan for the implementation of the pilot project is presented, which can provide a solution to acute environmental and land problems caused by previously created and newly created landfills in various regions of the country in a short time and at low cost.

### 1. INTRODUCTION

The modern approach to waste management is focused, among other things, on their complete (ideally) processing (utilization) without burial at landfills [1-6]. In some foreign countries (in particular, in Sweden) this approach has already been implemented to a large extent. But, in most countries, including even ecologically oriented ones such as Great Britain, France, Italy, the prevailing share of municipal waste (including its organic part) still continues to be directed to landfill [4].

In Russia, the problem of preventing further growth of landfills and reducing environmental damage from previously created landfills is one of the urgent tasks of state policy [1]. Naturally, the process of transition to the complete processing of banned waste disposal, reduction and elimination of landfills takes time. In the transition period, in addition to reducing the volume of waste newly arriving at the disposal site, the task arises of eliminating environmental damage from previously created landfills and finding a solution for their subsequent utilization (elimination or use as an environmentally friendly element of the terrain).

Russian landfills can be made environmentally friendly and inexpensive by turning them into controlled aerobic bioreactors. It is known that the conservation of a dump (landfill) is associated with large one-time costs, and the maintenance of a mothballed dump (under the conditions of continued activity of anaerobic microorganisms) requires significant annual expenditures as long as the landfill remains a source of harmful emissions and environmental pollution, i.e. throughout the life cycle of this object.

At the same time, the landfill can be turned into a natural bioreactor, eliminating the source of environmental problems and avoiding significant costs. In such a bioreactor dump, specially selected

associations of aerobic bacteria introduced into her body in a relatively short period can carry out biological "cleaning" of the entire landfill array, not only processing all the organics into microbial fertilizers, but also removing contaminants from hydrocarbons and other harmful contaminants, and also eliminating pathogenic microflora. It is only necessary to create dumps in the entire body volume that are optimal for the life of beneficial bacteria, humid air and temperature conditions and replace "bad" microorganisms with them. Humidity-air control is achieved by means of a network of wells for feeding into the body of the landfill and distributing in it the amount of air (oxygen) and moisture necessary for aerobic bacteria, as well as by selecting the filtrate at the base of the landfill for its cleaning (using natural sorbents) and reusing purified liquid.

## **2. LANDFILL BIOREACTOR IN PRACTICE**

This idea of a landfill bioreactor was put to practical use in the United States [7,8], where in the early 2000s, with the support of the US Environmental Protection Agency (EPA), several landfills in several states were turned into bioreactors and, as a result of the operation of such bioreactors, positive results proven by instrumental measurements and analyzes, including:

- the methane yield, previously (before the air was fed into the landfill body) produced by anaerobic bacteria, was sharply reduced and reached the usual levels in the air;
- accordingly, the problem of methane emissions, risks of fires and fires was eliminated;
- eliminated fetid odors;
- the filtrate has become much cleaner;
- the volume of the landfill has decreased;
- the composition and characteristics of the material contained in the body of the landfill have changed for the better, the material has ceased to be dangerous.

### **2.1 Advantages of Bioreactor landfills**

Bioreactor pilot landfills cost about \$ 29 per ton of landfill material (about \$ 2 million per landfill of about 70 thousand tons), while the effect of reducing landfill costs was \$ 150 per ton due to cost reduction on leachate cleaning, fire prevention, charges for emissions and pollution of groundwater and air, other costs for maintaining the landfill while reducing the term of the "active" state of the landfill from more than 30 to 3-5 years. Due to the simplicity of the process, the limited number of equipment used and the enormous unit capacity of the "landfill bioreactor", such a bioreactor looks like the cheapest way to dispose of waste in comparison with any other.

In the USA, bioreactor dumps have become a new long-term trend in waste management supported by the US Environmental Protection Agency (EPA), since such bioreactors stabilize the dump in a

short time, turn its environmentally hazardous content into inert and often useful materials, which can either be utilized with the release of the previously occupied landfill for a new landfill, or the vacated and reclaimed land can be used for other purposes for hail constructional, agricultural needs, afforestation and other environmentally friendly purposes. In the US, there are plans to expand the number of landfill bioreactors. Research continues on the impact of bioreactors on the environment and the improvement of technology.

The domestic level of biotechnological studies of microbial biotransformation of organic waste is not inferior, and in a number of areas it surpasses the world one. Domestic engineering and technology, the level of design and construction business are quite sufficient to, based on the results of specialized microbiological studies, successfully create bioreactor dumps and manage their work.

The task of modeling the heat-mass transfer regimes of a bioreactor, selecting an association of useful aerobic microbes, substantiating technical solutions and choosing equipment requires a multidisciplinary team of performers.

It is advisable to start with the implementation of a pilot project of a "landfill bioreactor" with the subsequent implementation of a large-scale program to transfer Russian landfills to an inactive (not dangerous for the environment) state and their subsequent complete or partial elimination, and, if necessary, use of the vacated land for reuse as a new landfill or for other beneficial uses with economic benefits.

## **2.2 Action plan for pilot project**

The proposed action plan for the implementation of the pilot project could include:

Preparatory stage.

- selection of an object for a pilot project with the definition of the goals and objectives of the project in the context of the post-project use of the site currently occupied by the landfill;
- the task of modeling the heat-mass transfer regimes of a bioreactor, selecting an association of useful aerobic microbes, substantiating technical solutions and choosing equipment requires a multidisciplinary team of performers.
- selection of bacterial associations for biological destruction of the organic components of landfill material, removal of heavy metals and other contaminants, suppression of pathogenic microflora, substantiation of requirements for air-humidity and temperature conditions to ensure maximum activity of bacteria;
- three-dimensional modeling of heat and mass transfer processes in the volume of a bioreactor dump;
- definition of a network of wells and distribution pipelines for uniform supply of air and moisture throughout the volume of the bioreactor dump, as well as a drainage system for collecting and removing leachate, cleaning it and returning it to the process;

- substantiation of the main technical solutions of a landfill-bioreactor with a task to carry out design work;
- preparation of the financial model of the project;
- preparation of a business plan for the project;
- preparation of draft administrative and regulatory documents for the launch of the project.

Stage of construction of a landfill bioreactor:

- implementation of design work;
- ordering and supply / leasing of equipment;
- performance of drilling and construction works;
- commissioning;
- the formation and training of operating personnel;
- conclusion of the bioreactor to the design mode.

Stage of operation of the landfill bioreactor:

- maintenance by operating personnel of the bioreactor operating mode established by the technological regulations;
- biotechnological support of the bioreactor;
- environmental monitoring of the state of the landfill in comparison with its predicted parameters in a state without being transferred to the bioreactor mode, as well as in comparison with an analogue object not transferred to the bioreactor mode;
- collection and analysis of information on the temperature, humidity and air conditions of the landfill bioreactor, bacterial activity, the introduction, if necessary, of refinements and changes to the operating conditions and their parameters.

Stage of landfill liquidation after bioreactor shutdown:

- dismantling of wells, pipelines, equipment;
- sectional excavation of biodegradable material, its separation into fractions and products, including the isolation of components that require possible additional processing or disposal;
- the use of useful components of the processed material as soil, technical soil;
- Reclamation of the cleared land for permitted new use.

Stage of summing up the results of the pilot project and making decisions regarding the distribution of proven technology to new facilities

- report on the completed project;
- conclusion of independent experts;
- patenting technology to protect national scientific and technical documentation;
- preparation of a program for the distribution of proven technology to other facilities.

- adoption of government decisions at the regional and national levels to stimulate the use of the Moscow Region experience in transferring landfills to bioreactor mode.
- obtaining significant environmental and economic benefits at the national, regional levels.

### 3. CONCLUSION

The above proposal to transfer landfills to an environmentally friendly state of the bioreactor is able to provide a solution to acute environmental and land problems caused by previously created and newly created landfills in various regions of the country in a short time and at low cost.

*Keywords: landfill, bioreactor, aerobic microorganisms, organic waste, recycling, environment.*

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## THE INTERNATIONAL ENTREPRENEURIAL MINDSET OF TUNISIAN SMES OPERATING IN AFRICAN CONTEXT

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### ABSTRACT

### SYNOPSIS OF THE CENTRAL THESIS

In this paper, the authors aimed at presenting theoretical advancements and empirical evidence of the impact of the International Entrepreneurial Orientation (IEO) and international experience (IE) on the international performance (IP) in a turbulent and uncertain environment by borrowing theoretical elements from the behavioral theory of the firm and entrepreneurship literature, and by testing hypotheses on a sample of Tunisian SMEs specialized in ICT and operating in Africa. Tunisia has developed a national strategic plan "Tunisie Digitale 2020" (2014-2020), which mainly aims to develop the various electronic services in order to make the knowledge industry competitive, especially at the international level (Rapport TIC en Tunisie, DG Trésor, 2016). Indeed, the ICT sector is considered as a priority in Tunisia as it employs approximately 9% of the workforce and represents 7% of the GDP. This leads researchers to evaluate this situation and questioning if these exports companies operating in African environment, have reached the IP. This latter is considered as a multi-dimensional construct. It includes many dimensions such as international sales growth, international market share, international profitability, international growth, etc. (Moen et al., 2008; Bianchi et al., 2017; Presutti, 2019). The majority of Tunisian companies are SMEs, their management teams are generally heterogeneous, especially in terms of skills (training and experience) (Ben Turkia, 1996). Many research works confirmed that SMEs acquiring IE and exposed to foreign culture and business, enhance the IP (Autio et al., 2000; Javalgi and Todd, 2011; Love and Ganotakis, 2013; Odorici and Presutti, 2013). In particular, Tunisian SMEs in the ICT sector have experienced significant growth due to the fact that their founders had lived, worked, studied abroad, and especially in Europe. They have acquired technological experience and knowledge, allowing them to play a fundamental role in identifying opportunities, especially at an international level (Mejri and Ramadan, 2016). Tunisian SMEs adopted different structures for export operations (Khemakhem, 2010). They are flexible in adapting to the specific regulations of each country, particularly on the African market (Mejri and Ramadan, 2016). Hence, an important question that arises at this level: what is the extent of the impact

of this foreign experience of Tunisian SMEs on their stretch in the African market and achieving global performance.

This reflects the desire of managers to make the best use of available resources and adopt an appropriate management style (Wiklund, 1999; Messeghem, 2003; Aloulou and Fayolle, 2005; Aloulou, 2017). Between the opportunities available on the one hand, and the IP objectives on the other hand, SMEs managers seem to be forced to adopt entrepreneurial behavior in order to directly influence global and IP (Lumpkin and Dess, 1996; Knight, 2000; 2001; Rauch et al., 2009). Some authors call this business behavior IEO, which according to them, is considered as a preliminary and essential phase to internationalization (O'Cass and Weerawardena, 2009) and positively affects IP of SMEs (Jantunen et al., 2005; Knight, 2001; Moreno and Casillas, 2008; Ripollés-Meliá et al., 2007; Wang, 2008; Slevin and Terjesen, 2011). Thus, IEO, known by its strategic aspect (Knight, 2001, Wales et al., 2011), refers to the taking of opportunities on the international market with an innovative, proactive and risk-seeking behavior (Jantunen et al., 2005; Wang, 2008; Glavas and Mathews, 2014). The choice of the IEO variable makes possible to trace the progressive path of internationalization. It affects decision-making style, strategic orientation, managerial processes, prospecting for opportunities, development of necessary resources, etc. However, in front of the uncertainty and turbulence of the international environment, SMEs may meet some obstacles to its internationalization (Genc et al., 2019). From another, SMEs become more motivated to improve its entrepreneurial mindset in order to benefit from new opportunities (Javalgi and Todd, 2011). As a consequence, researches become motivated to answer some important questions. How IP of Tunisian SMEs can be evaluated? How well Tunisian SMEs operating in ICT African market, are developing their IEO mindset and how it does affect their global competitiveness? To what extent the IE of Tunisian SMEs is leading to IP? What role of external environment is playing in moderating the effect of IEO on IP? (Figure 1). The hypotheses are as follow:

H1: IE of Tunisian SMEs impacts positively the IP.

H2: IEO of Tunisian SMEs impacts positively the IP.

H3: External environment moderates the relationship between IEO and IP.

This research will evaluate the capacity of ICT Tunisian SMEs to cope with environment especially in African context that can be characterized by uncertainty and turbulence. It would be saying that up to the moment, Tunisian SMEs do not know exactly how the African market really is, and their ability to adapt under the structuring of the economies of these continent countries. That's why researchers went to study this research problem.

## RESEARCH METHODOLOGY

Data collection has been done from Tunisian companies specialized in ICT and operating in Africa. A total of 46 valid Responses has been collected after distributing 733 electronically (see table 1). To measure variables included in this study (IE, IOE, Environment and IP), valid scales were chosen and adapted from developed literature (Belso-Martí'Nez, 2006; Blesa and Ripolles, 2008; Kenny and Fahy, 2011; Bianchi et al., 2017). All these latent variables are measured using a Likert-Scale five-point. Data were analyzed using PLS-SEM which is considered the most appropriate in this case of study due to some reason such as management science-based research (Alam et al., 2019a; 2019b), complex modeling (Hair et al., 2019), small sample size (Chin and Newsted, 1999).

## FINDINGS

This phase has a main objective to make solid constructs for analysis after declining unsuitable indicators by testing the reliability and validity. Reliability was evaluated by using composite reliability and Cronbach's Alpha. While convergent validity has been assessed using Average Variance Explained (AVE). Discriminant validity was computed using the approach of Fornell and Larcker (1982); (Hair et al., 2017) (Table 2 and Table 3). To explain structural relationships and test hypothesis, bootstrapping technique has been applied (Hair et al., 2017). Using path coefficient analysis direct relationships were tested and presented in table 4. IOE ( $\beta = 0.340$ ;  $p = 0.045 < 0.05$ ) and IE ( $\beta = 0.357$ ;  $p = 0.003 < 0.05$ ) impact significantly International Performance. Looking at the  $f^2$  values, the impact of IE is greater than IOE ( $f^2$  [IOE] = 0.129;  $f^2$  [IE] = 0.170). To test the moderating effect of Environment on the relationship between IOE and International Performance, moderation has been carried out. Results showed that Environment moderates the main relationship in the model as the impact of IOE on International Performance becomes non-significant (see table 5).

## DISCUSSION

As a theoretical contribution, this study showed to how extent the IP of SMEs may be impacted especially in the turbulent and uncertain environment. The IOE and IE showed their impact in the path of internationalization while ensuring business behavior of innovation and risk-taking (Lumpkin and Dess, 1996).

As a practical contribution, results showed that reaching IP does not necessarily depend on a long experience. Tunisian SMEs developed export activities to African countries, and improve their IP with short experience (6 years on average). Thus, the IP of Tunisian ICT SMEs is based on the prior IE of their founders and managers who should continue to learn from their African experience to sustain IP

in the instable environment (D'Angelo and Presutti, 2019). Tunisian SMEs are, therefore called upon not only to penetrate these emerging African markets but also to conserve them by providing innovative solutions, products and services to their African clients due to the moderator role of environment. This latter reduces the positive role of the IEO in enhancing IP. In addition, Tunisian ICT SMEs are invited to review continually their internationalization approach as the environment is turbulent (Filser and Eggers, 2014). Tunisian SMEs are limited resources and due to their relatively young age and small size, they should enhance continually their experience by learning-by-doing and exploiting external networks (D'Angelo and Presutti, 2019). Moreover, due to the turbulent African market, Tunisian SMEs are required to develop skills of intuition and anticipation on the market and seek new opportunities by mobilizing the dimensions of the IEO (Wirtz et al., 2016). The current difficult economic situation in Tunisia pushes these companies to seek alternative opportunities, especially after the 2011 revolution and COVID 19 pandemic. This research remains limited by the number of the Tunisian SMEs studied (only 46 SMEs). Thus, these results cannot be generalized. Furthermore, data used for this study are of transversal, so, to have a clear vision of Tunisian SMEs at different moments, it would be better to gather a longitudinal information in order to catch the evolution of international results especially after the pandemic of COVID-19 (Acosta et al., 2018).

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## APPENDICES

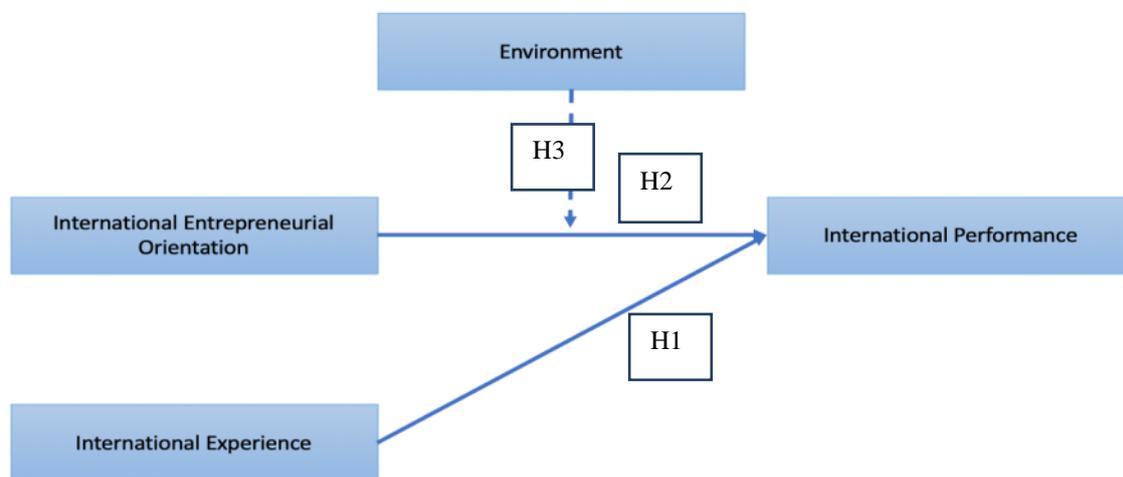


Figure 1: Hypotheses

| 46 valid questionnaires used    | Mean/<br>Percent<br>age | Standa<br>rd<br>deviati<br>on | Ske<br>wne<br>ss | Ku<br>rto<br>sis |
|---------------------------------|-------------------------|-------------------------------|------------------|------------------|
| Employees                       | 38.39                   | 31.54                         | 0.47<br>2        | 0.6<br>88        |
| Years since the creation        | 11.65                   | 7.82                          | 1.39<br>3        | 2.8<br>10        |
| Years since operating in Africa | 6.39                    | 3.19                          | -<br>0.10<br>0   | -<br>1.4<br>83   |
| Method of market penetration:   |                         | -                             | 0.41<br>2        | -<br>1.2         |
| - Direct                        | 43.5%                   |                               |                  | 52               |
| - Via agents/distributors       | 34.8%                   |                               |                  |                  |
| - Subsidiaries                  | 21.7%                   |                               |                  |                  |

Table 1: characteristics of the sample.

| Variables  | Items                    | Outer Loadings | Internal consistency reliability |       | Convergent validity |
|--|--------------------------|----------------|----------------------------------|-------|---------------------|
|  |                          |                | Cronbach's alpha                 | CR    | AVE                 |
| <b>Environment</b>                               | Environment1             | 0,894          | 0.853                            | 0.825 | 0.617               |
|  | Environment2             | 0.886          |                                  |       |                     |
|  | Environment3             | 0.845          |                                  |       |                     |
| <b>International Entrepreneurial Orientation</b> | IOE1                     | 0.756          | 0.882                            | 0.875 | 0.639               |
|  | IOE2                     | 0.761          |                                  |       |                     |
|  | IOE3                     | 0.924          |                                  |       |                     |
|  | IOE4                     | 0.742          |                                  |       |                     |
| <b>International Performance</b>                 | IP1                      | 0.734          | 0.796                            | 0.867 | 0.5620              |
|  | IP2                      | 0.863          |                                  |       |                     |
|  | IP3                      | 0.782          |                                  |       |                     |
|  | IP4                      | 0.766          |                                  |       |                     |
| <b>International Experience</b>                  | International Experience | 1.000          | 1.000                            | 1.000 | 1.000               |

Table 2: PLS-SEM Algorithm

|                                  | International Performance | Environment | International Experience | IEO   |
|----------------------------------|---------------------------|-------------|--------------------------|-------|
| <b>International Performance</b> | 0.788                     |             |                          |       |
| <b>Environment</b>               | -0.322                    | 0.786       |                          |       |
| <b>International Experience</b>  | 0.471                     | -0.564      | 1.000                    |       |
| <b>IEO</b>                       | 0.378                     | 0.043       | 0.094                    | 0.799 |

Table 3: Discriminant validity.

| Structural links                           | $\beta$ | T Statistics ( O/STDEV ) | P Values | Decision |
|--|---------|--------------------------|----------|----------|
| <b>IEO -&gt; International Performance</b> | 0.340   | 2.011                    | 0.045    | Accepted |
| <b>IE -&gt; International Performance</b>  | 0.357   | 2.951                    | 0.003    | Accepted |

Table 4: Direct relationships testing

| Moderation Structural links                               | $\beta$ | T Statistics ( O/STDEV ) | P Values | Decision |
|---|---------|--------------------------|----------|----------|
| <b>IEO X Environment --&gt; International Performance</b> | -0.053  | 0.334                    | 0.738    | Accepted |

Table 5: Moderation relationships testing

# IMPRESSIONS ON THE IMAGES OF THE ANNUAL REPORTS: A GOFFMANNIAN AND BARTHESIAN ANALYSIS OF CSR REPORTING IN PETROBRAS

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## ABSTRACT

The annual report is a communication vehicle between organisations and its stakeholders that assist them in the decision making process (Stanton *et al.*, 2004). Its content, structure and role has changed dramatically in the last fifty years (Beattie *et al.*, 2008). Adding to the quantitative information (mainly provided in the statutory financial statements), these reports are increasingly comprised by narratives and visual forms, such as tables, graphs, diagrams, the use of color and pictures. This visual turn of the annual reports reflects how social life and society is, today, vastly visual (Davison, 2015).

Visualisation plays an important role in experiencing and organizing reality. Therefore, the act of viewing is more than just seeing: the act of viewing assembles the experience of other sensory faculties, and brings the cultural, social and psychological knowledge to understand what is being visualized or experienced (Warren, 2005). "Furthermore, gaze is political. Who can be seen and who is invisible? Who looks at who and why? Who has the power to reveal and conceal?" (Warren, 2005: 863).

As a performing space, annual reports are similar to stages, in which scenes are performed and stories told. Narratives and visualisations tell the story of the organisations, "giving a holistic view of operations, value creation capacities, activities and processes" (Steenkamp and Hooks, 2011: 62). The growing investment in visual appearance and in writing mode is underpinned by the organisation's image management, the search for legitimacy in conveying of corporate social responsibility, also being seen as a mean of impression management (Beattie *et al.*, 2008; Hooghiemstra, 2000).

Impression management is a field of study within social psychology concerned with studying how individuals, conscious or unconscious, present themselves to others in order to generate a favorable perception (Hooghiemstra, 2000). It is the contemporary label for Goffman's self-presentation behavior described in Goffman's classical book *The presentation of self in everyday life*, published in 1959. In social interactions people manage the impression they make on others by modifying the way they act, the way they look and the scene they act on (Goffman, 1985). Within the organisational context, impression management has been applied to minimize the contradictions between the private and the public self, or between identity and image, with the intention of shaping the desired identity (Tata and Prasad, 2015).

Impression management behaviour can be assertive (or acquisitive/proactive) or defensive (or protective/reactive) (Hooghiemstra, 2000). The first category is undertaken to enhance an already established image or identity. Defensive impression management strategies, on the contrary, are used to repair a damaged or threatened image, as in the case of the adoption of corporate social reporting as a means to influence people's perceptions (Windscheid *et al.*, 2018). Corporate reporting can project a socially responsible image, enhance legitimacy and the organisation reputation (Tata and Prasad, 2015). It can also project the positive image and shape the perceptions of stakeholders.

In this context, and because visual images convey complex messages and ways to manage the impressions that render visibility to certain aspects of the organization (e.g. corporate brand, intellectual capital, accountability), this paper follows the call for more visual research in accounting (Davison, 2015; Corrigan, 2018) and seeks to examine the extent to which pictures are used to communicate and manage corporate social responsibility (CSR) information, by studying illustrative examples of the covers of the annual reports of the Brazilian oil and gas company Petrobras, from 1954 to 1984, through the lenses of Goffman and Barthes.

This research employs a qualitative case study within a methodological interpretive approach. A qualitative content analysis was developed through an interpretive reading of the symbolism that exists in the data sources that one has in hand. The goal was to interpret the meanings of the phenomena presented to the researcher in order to elucidate the meaning, unveil the intentions, compare, evaluate, discard the accessories, so that recognizing the essential, can give meaning to the actions.

It is a case study that empirically exemplifies the inclusion of theory, without the intention of showing superior practices, but illustrating theoretical categories that are observable in practice. The case study draws on the insights of Goffman's social psychology and Barthes's philosophy. Goffman's (1985) dramaturgical concepts of stages, scenes, collusion, expressive control, directive dominance, dramatisation, teams, reciprocal familiarity, idealisation, characters, regions, performance, secret society and social values, and Barthes (1990, 2012) semiotic concepts of linguistic message, denotation, and connotation, referent, spectator, studium, punctum, noema, blind field and scrutinize are used to analyse the covers of Petrobras annual reports, illustrating the company's practice and seeking to enlarge our knowledge of a multifaceted phenomenon.

Petrobras is a majority state-owned Brazilian oil and gas company, founded in 1953, that operates in more than 25 countries around the world. Petrobras was chosen as a case study because it operates in an economic sector with significant social, environmental and economic impacts, providing an interesting field of study in what relates to the disclosure of CSR issues and its impression management. Until the 1970s, corporate reporting was mainly financial, but even before that time

Petrobras was already reporting more than the financial statements which implies that the company was already managing the stakeholders' opinions and searching for legitimacy.

During a period of military dictatorship, the covers of the Petrobras annual reports, through the use of photographs, convey messages related to company's activities, its employees, its assets, its values, and the environment, managing positively the stakeholders' perceptions.

Under Goffman (1985)'s lenses, each cover represents a theatricalisation, a scene that portrays activities related to the company. During the analyzed period, the chosen scenarios contain essential elements to sharpen the imagination of those who were interested in Petrobras, particularly the petroleum tower and the sky, and other natural elements such as the vegetation, the oil and the sea. These visual images contain a literal message (denotation) and symbolic message (connotation), according to Barthes (1990). The tower and the oil are directly related to the activity of Petrobras; the sky is the backdrop to the tower's verticality and to the rise of oil, its most valuable asset, and shows that behind the activities of the company is the reach of the dream of rising Petrobras and the Brazilian Nation, reinforcing a positive idealisation. This was the intention of the Government and the Company in a period of military dictatorship: to achieve the status of a large company, seeming to boost the development of the country itself. The use of these elements contributed to a construction of reality, creating an optimistic perception about the company, in particular hiding the environmental impacts of the Petrobras activity. In this theatrical context, the characters (Goffman, 1985) are the Petrobras employees, and from their performance emerge the existence of familiarity and of teamwork to reach a common purpose: the well-being of Brazilian people and of the planet, social values, symbolized by vegetation elements. Sometimes it seems there is a secret society (Goffman, 1985), working in collusion for a common purpose.

The results of this case study reveal that the role of annual reports has evolved from conventional communicator of financial information to "storytelling" and the use of pictures is an interesting way of enhancing the story (Steenkamp and Hooks, 2011). Their covers are an open door to disclose CSR issues and to influence the stakeholders' perceptions about the company, creating an imaginary scenario in which the chosen scenic elements incorporate intentional connotative meanings.

*Keywords: Annual reports, Barthes, corporates social responsibility, impression management, Goffman, military dictatorship, Petrobras, visual images.*

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## THE ENTREPRENEURIAL ECOSYSTEM OF IMMIGRANT FEMALE ENTREPRENEURS: EVIDENCE FROM FINLAND

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### ABSTRACT

Women's decisions to migrate can be driven by different factors including marriage, family, education, the labour market and business venturing opportunities in the receiving country. According to World Migration Report (2020), there are 130 million migrant women worldwide, constituting 48% of all international migrants. However, female migrants received a scant attention of scholars within the migration literature (Hofmann and Buckley, 2013), with even fewer focus on the professional lives of highly skilled migrant women in post-migration period (Meares, 2010; Webb, 2014). Despite their competences that will be demanded in the labour market of the host country, qualified female migrants may opt for business venturing for a variety of reasons. Chreim et al. (2018) argue that extant research on immigrant female entrepreneurship mainly focuses on lower-skill and low-growth sector strategies by giving a scant attention to highly skilled migrant women entrepreneurs targeting high-growth business strategies. Hence, we argue that there is an insufficient understanding of how highly educated and skilled female migrants can contribute to global business and entrepreneurship fields given the unwarranted assumptions regarding their peculiarities and the deficit of interdisciplinary approaches.

One of these unwarranted assumptions is that migrant women face a "double disadvantage" in the receiving context first as migrants and second as women (Dhaliwal and Kangis, 2006; Rajman and Semyonov, 1997). The disadvantages faced by third-world country citizens are tripled due to the difficulties of adapting to the labour market and institutional environment of advanced economies (Rajman and Semyonov, 1997). Hence, we claim that disadvantages inherent to migrant women entrepreneurs needs to be paid more attention to and should be considered as an entrepreneurial dimension of female migrant entrepreneurs. Furthermore, there is a scarce empirical evidence that comprehensively explains the contextual factors enabling and constraining immigrant female entrepreneurs and their businesses in the host country (Azmat, 2013; Brieger and Gielnik, 2020; Chreim et al., 2018). Given the entrepreneurial ecosystem's feature of being a prominent "contextual-description tool" within the entrepreneurial discussions (Ahokangas et al., 2018), we will link the

female migrants, who might have faced certain disadvantages, and their businesses to their entrepreneurial ecosystem in the host country.

Entrepreneurial ecosystem is constructed of two components that of an “entrepreneurial” and the “ecosystem”. The first part of the phrase is “entrepreneurial” and it is understood as the process of opportunity exploration, evaluation and exploitation for the development of new products and services (Schumpeter, 1934; Shane and Venkataraman 2000), whereas the second part of the phrase is “ecosystem” and it comes from the ecology (biology) literature and defined as “all systems which contain biotic and abiotic components, which are interdependent” (Doing, 1997, p. 222). Hence, entrepreneurial ecosystem is defined as “a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory” (Stam and Spigel 2016, p. 1). According to Isenberg (2011), entrepreneurial ecosystem is comprised of policy, markets, supports, culture, human capital and finance. By dividing these elements into framework conditions and systematic conditions, Stam (2015) states that entrepreneurial action (the process of opportunity exploration and exploitation) is enabled by the combination of both conditions. However, Stam and Van de Ven (2019) argue that entrepreneurial ecosystem’s elements not only facilitate the entrepreneurship within a certain territory, but it can also constrain it. Hence, the aim of our research is to explore:

- How does the entrepreneurial ecosystem of highly skilled immigrant female entrepreneurs influence their businesses given their peculiarities and potential? and
- How do migrant women entrepreneurs contribute to their entrepreneurial ecosystem?

By building on the cases of six highly educated and skilled migrant women entrepreneurs based in Northern Finland and based on Autio et al. (2018)’s structural framework (EE Structures, EE Processes, EE Contingencies and EE Outcomes), we will examine the role of entrepreneurial ecosystem in migrant women’s businesses. The data was collected via semi-structured interviews and participant observations from immigrant female entrepreneurs with diverse cultural backgrounds (the UK, the Netherlands, China and Russia). The collected data was recorded, transcribed and coded based on Lichtman’s (2013) “Three C’s” method. The researcher triangulation was maintained while coding the data.

Our findings demonstrate that difficulties experienced by highly skilled migrant women entrepreneurs stem from their immigration background, family and motherhood status. The working routine of migrant women entrepreneurs with pre-school and primary school children depended on the educational system of the receiving country. Furthermore, insufficient fluency in host country’s language, cultural dissimilarities and narrow understanding of the receiving country’s legislation and

its requirements made it difficult for immigrant female entrepreneurs to launch and continue their ventures independently. Thus, the “double disadvantage” (Dhaliwal and Kangis, 2006; Rajman and Semyonov, 1997) faced by interviewed highly skilled immigrant female entrepreneurs caused financial, market and institutional constraints. The obstacles arising from the disadvantages inherent to female migrant business owners were overcome with the support of entrepreneurial ecosystem and migrant women were able to start and continue their businesses. Hence, entrepreneurial ecosystem was acting as an enabler of immigrant female entrepreneurs’ businesses (Stam, 2015). However, motherhood status and immigration background of migrant women entrepreneurs inhibited them to exploit the opportunities from the entrepreneurial ecosystem to the greatest extent. In their turn, immigrant female entrepreneurs were contributing to the entrepreneurial ecosystem of the receiving country by disseminating the information among the local companies about the business venturing opportunities in their country of origin, sharing the knowledge with their fellow peers and providing any means of support to them.

Theoretically, we contribute both to entrepreneurial ecosystem and migrant women entrepreneurship literature. We contribute to entrepreneurial ecosystem literature by considering both the gender and migration backgrounds of entrepreneurs in the ecosystem that differ from entrepreneurs in general per se, whereas the migrant women entrepreneurship literature is enlarged by comprehensively considering the contextual factors including the entrepreneurial ecosystem’s elements, processes, contingencies and outcomes impacting on female migrants’ businesses.

We suggest to policymakers that policies encouraging entrepreneurial activities of population should be more gender and migrant inclusive. Policies targeting the enhancement of entrepreneurial actions of migrants should be designed by taking into consideration the immigration period of entrepreneurs. In their turn, immigrant female entrepreneurs should share their concerns and initiate the type of support that they need from local authorities.

Our findings were limited to the data collected from highly skilled immigrant female entrepreneurs based in Northern Finland. Future research should consider the entrepreneurial ecosystem of migrant women entrepreneurs based in other developed countries and less-developing contexts with different educational backgrounds and competences. Furthermore, in this research the entrepreneurial ecosystem of immigrant female entrepreneurs was analysed from female migrants’ perspectives. Therefore, future research should examine the entrepreneurial ecosystem’s actors’ viewpoint regarding the entrepreneurial actions of migrant women.

*Keywords: Female migrants; highly-skilled; immigrant female entrepreneurs; migrant women entrepreneurs; entrepreneurial ecosystem; entrepreneurship ecosystem; Finland.*

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## THE TAX REGIME OF NON-HABITUAL RESIDENTS IN PORTUGAL

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### ABSTRACT

#### THE TAX REGIME OF NON-HABITUAL RESIDENTS IN PORTUGAL

The tax regime of non-habitual residents (NHR) is particularly attractive for non-residents who practice high value-added activities, and for dependent and independent workers or members of statutory bodies of the legal persons who want to obtain a residency in Portugal in order to achieve tax benefits.

In this context of international tax competition and loss of tax competitiveness, the creation of new strategies and external investment funding instruments is imposed. The creation of the non-habitual residents' tax regime (NHR) had the intent to reduce the tax burden in order to welcome new investors and prevent the relocation of the "volatile taxpayer" for more attractive tax environments (Nascimento et al., 2010).

The need for the introduction of the NHR regime was already being claimed since 2008. Article 126 of Law No. 64-A/2008 of 31 December, which approved the State Budget for 2009, authorized the government to create a tax regime for NHR for Income Taxation of Individuals.

The objective of this new regime is to attract people and investment to Portugal by means of qualified professionals in various sectors of the economic activity, but also people with high net worth (Ferreira & Gonçalves, 2012), the so-called *High Net Worth Individuals* (HNWI), which move essentially for reasons of tax order (Borges & Sousa, 2011).

The tax attraction of these people is possible in two different ways: through the exemption method by eliminating the double international taxation of foreign source income earned by NHR, or through a mitigated and proportional taxation of certain income from dependent and independent workers (including those obtained in Portugal), earned by IRS taxpayers to whom this quality is recognized.

The tax system of NHR is applied to citizens who have lived abroad for the past five years and who are now living in Portugal for more than 183 days, having acquired an apartment in Portugal to live there.

For example, if a foreign citizen, NHR in Portugal in 2016, remains in 2018 for only 3 months for having sold his apartment in Portugal, but continues to earn income from dependent work

in Portugal in the same year, the citizen will no longer be able to benefit from the right to be taxed as a NHR, since he will not complete the residency criteria of paragraphs a) and b) of number 1 of Article 16 of the IRS. Effectively, this foreign citizen, staying less than 183 days in Portugal in 2018, and not possessing housing conditions that indicate that the person might intend to maintain and occupy it as habitual residence, will be now taxed as non-resident as far as the income of national source is concerned.

After successive changes to the CIRS, the tax regime of the NHR has become particularly attractive to the qualified professionals working with high value-added activities, with scientific, artistic or technical nature and for individuals with high net worth. This regime is provided as an incentive to foreign investment for non-residents who carry on high value-added activities abroad and who are willing to establish permanent domicile in Portugal, as well as for non-residents who, being dependent workers or members of statutory bodies of legal persons only want to establish in Portugal a temporary residence in order to earn income, because they have been detached or expatriated.

In this paper we analyse the impact of NHR in Portugal. Our main limitation is access to data from the State. For future works we propose a study to compare the Portuguese situation and Spanish situation.

*Keywords: Non-habitual Residents; Foreign Investment; Tax Benefits; Individual personal income tax*

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## PREDICTING INTRADAY STOCK PRICES IN POST-COMMUNIST EUROPEAN MARKETS USING ARTIFICIAL INTELLIGENCE

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### ABSTRACT

We evaluate if forecasting models derived from artificial intelligence (AI), machine learning techniques (see, e.g., Géron, 2019) are able to successfully predict future stock prices in Eastern European countries that were formally part of the Communist Bloc (Dragotă and Țilică, 2014; Anghel, 2014). We contribute to the literature by focusing on intraday predictability, which has been hardly analyzed in these markets, especially using recently introduced machine learning tools. The specific models that we consider are: Support Vector Machines (SVM; Cortes and Vapnik, 1995), Logistic Regression (LOGISTIC), Random Forests (FOREST; Ho, 1998), Deep Neural Networks with a Wide-and-Deep architecture (WDNN; Cheng et al., 2016), and three Recurrent Neural Networks (Rumelhart, 1986) with a Simple (SRNN), Deep (DRNN), or Long-Short Term Memory architecture (LSTMNN). The data sample is collected from Bloomberg and consists of 15-minute intraday prices for the main market indexes in Serbia (index name BELEX15), Romania (BET), Bosnia and Herzegovina (BIRS), Hungary (BUX), Croatia (CRO), North Macedonia (MBI), Ukraine (PFTS), The Czech Republic (PX), Bulgaria (SOFIX), and Poland (WIG). The sample spans from December 27, 2017 to June 4, 2020 and contains a total of 127,681 intraday data points.

For each index, AI models are fitted on the first 10% of observations and are then used to make out-of-sample predictions (this avoids hindsight bias) regarding the 1-step-ahead direction of price movements, being retrained every 4 calendar weeks. The resulting series of predictions are used to estimate the average prediction accuracy and the average excess return over a benchmark buy-and-hold strategy, which simply buys the index at the beginning of the testing sample and does not perform any additional trades. Because of known market limitations, we assume no short trades are possible. For all models, we test the statistical significance of both performance measures using a Student's t-test for the difference in means, with threshold values of 50% for the accuracy and 0% for the excess return. We also compare the results obtained by the AI models with a naïve strategy that simply predicts that the previous price change will repeat in the future.

The results in Table 1 show that the AI models display superior predictive accuracy for intraday prices in the analyzed markets, both compared to the 50% threshold as well as to the naïve model. However, the results in Table 2 show that AI models are not generally capable of earning statistically significant excess returns over the buy-and-hold strategy, even when no adjustments are performed for trading

costs and other market frictions. Similar to some previous results (e.g., Anghel, 2017, 2020), this implies that (1) the considered forecasting models have no economic relevance for investors that trade on intraday stock prices in Post-Communist European markets and that (2) these young markets are efficient at pricing historical intraday information (Fama, 1970; Timmermann and Granger, 2004) even when tested against modern forecasting algorithms derived from Artificial Intelligence. Our findings are surprising in showing a severe limitation of AI models when used to forecast intraday stock prices.

Table 1. Forecasting accuracy

| Market Index | Forecasting model |           |           |           |           |           |           |           |
|--------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|              | SVM               | LOGISTIC  | FOREST    | WDNN      | SRNN      | DRNN      | LSTMNN    | NAÏVE     |
| BELEX15      | 57.40%***         | 60.16%*** | 61.31%*** | 61.56%*** | 52.92%*** | 51.58%**  | 50.55%    | 53.68%*** |
| BET          | 51.21%***         | 51.38%*** | 52.56%*** | 49.60%    | 50.40%    | 49.86%    | 50.81%**  | 46.63%*** |
| BIRS         | 47.02%            | 54.62%**  | 49.28%    | 49.69%    | 48.25%    | 48.45%    | 54.20%*   | 49.89%    |
| BUX          | 50.59%            | 51.68%*** | 51.13%*** | 50.57%    | 49.54%    | 49.84%    | 49.74%    | 47.81%*** |
| CRO          | 52.45%***         | 54.71%*** | 52.29%*** | 54.82%*** | 55.37%*** | 49.69%    | 52.54%*** | 50.71%*   |
| MBI          | 53.34%***         | 54.97%*** | 52.48%*** | 44.25%*** | 49.65%    | 49.06%    | 46.33%*** | 61.29%*** |
| PFTS         | 57.69%***         | 56.57%*** | 58.93%*** | 53.43%*** | 54.20%*** | 51.51%*   | 54.23%*** | 59.89%*** |
| PX           | 49.94%            | 51.82%*** | 51.40%*** | 48.51%*** | 51.93%*** | 51.40%*** | 52.15%*** | 48.23%*** |
| SOFIX        | 69.88%***         | 73.04%*** | 71.63%*** | 72.31%*** | 34.00%*** | 39.71%*** | 42.13%*** | 63.60%*** |
| WIG          | 50.08%            | 51.55%*** | 50.82%**  | 51.32%*** | 49.61%    | 50.19%    | 50.51%    | 49.26%**  |

Note. This table presents the accuracy of the AI forecasting models, i.e. the proportion of good predictions among the total number of predictions. \*\*\*, \*\*, and \* denote that the value is significantly different than the 50% threshold at the 1%, 5%, and 10% significance levels, respectively.

Table 2. Excess return vs. buy-and-hold strategy

| Market Index | Forecasting model |          |          |            |        |        |         |           |
|--------------|-------------------|----------|----------|------------|--------|--------|---------|-----------|
|              | SVM               | LOGISTIC | FOREST   | WDNN       | SRNN   | DRNN   | LSTMNN  | NAÏVE     |
| BELEX15      | 6.28%             | 9.62%    | 18.39%   | 22.60%     | 3.61%  | 1.91%  | 12.47%  | -8.89%    |
| BET          | 7.27%             | 9.39%    | 31.07%** | -10.42%    | 10.35% | -5.91% | 12.01%  | 2.50%     |
| BIRS         | -8.67%            | 6.30%    | -5.11%   | 16.88%     | -0.50% | 4.14%  | 13.42%  | -0.96%    |
| BUX          | 11.14%            | 17.62%   | 8.09%    | 12.86%     | -1.90% | 5.51%  | 4.09%   | -13.05%   |
| CRO          | -4.22%            | -2.71%   | -13.08%  | 5.40%      | 3.00%  | 10.67% | 4.65%   | 12.09%    |
| MBI          | 2.26%             | 7.30%    | -9.71%   | -37.32%*** | -7.71% | -2.33% | -15.90% | 39.01%*** |
| PFTS         | 1.20%             | 2.06%    | 3.91%    | -6.69%     | -2.02% | -6.35% | -0.21%  | 10.29%    |
| PX           | 3.53%             | 19.39%   | 11.81%   | -3.49%     | 8.93%  | 6.82%  | 10.21%  | 1.79%     |
| SOFIX        | 11.65%            | 13.97%   | 14.02%   | 5.06%      | -1.72% | 4.98%  | 10.88%  | 25.12%**  |
| WIG          | 6.01%             | 14.99%   | -3.50%   | 26.62%*    | 0.53%  | -4.18% | 10.16%  | 30.55%**  |

Note. This table presents the average excess return (percentage points per year) of the AI forecasting models over the buy-and-hold benchmark. \*\*\*, \*\*, and \* denote that the value is significantly different than the 0% threshold at the 1%, 5%, and 10% significance levels, respectively.

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*Keywords: Artificial Intelligence, Machine Learning, Forecasting Models, Trading Rules, Superior Predictive Ability, Stock Market Returns, Emerging Markets, Post-Communist Countries.*

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## INVESTIGATING LINK BETWEEN INTELLECTUAL CAPITAL AND BUSINESS MODEL: A SYSTEMATIC LITERATURE REVIEW

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### ABSTRACT

Intellectual capital is considered a key intangible asset for firms (Nahapiet & Ghoshal, 1998). Intellectual capital has a history as topic and has been proposed as one of the most relevant drivers of growth and key capitals in entrepreneurial development over time (Halberstadt et al., 2019). Overall, studies found a positive significant relationship between financial performance of firms and intellectual value added, intellectual capital efficiency, relational capital efficiency, human capital efficiency, and structural capital efficiency (Salehi et al., 2014). As a consequence, it is well established that intellectual capital affects firm performance positively and provides competitive advantage.

Despite this, there is less studies when it comes to consider intellectual capital and the effect on and the relationship with business model and business model innovation. The concept of business model and business model innovation build on several strategic management theories (Amit & Zott, 2001). Where a business model has been used as a mean to create value in a business, business model innovation refers to planned, novel and innovative changes to the fundamental features of the firm's business model and/or the structural design linking these elements (Foss & Saebi, 2018), and also to the way in which the firm collaborates at strategic and operational levels in order to bring products and/or services to the market (Bouwman et al., 2018).

Previously, most literature in the field of business models focused on their structural features and assumed a static relationship among their various elements (Demil & Lecocq, 2010). More recently, however, researchers have underlined the need for a holistic perspective that incorporates innovation in the various elements involved in the value generation and delivery processes (Massa et al., 2017), since fundamental changes in the relationship between the business model elements can lead to a higher level of business model innovation.

As aforementioned, the relationship between intellectual capital and business model has been quite neglected by the literature, or at least it leaves room for further research lines. For example, a rich stream of studies in the intellectual capital field, has assessed the impact of intellectual capital on value capture (Salehi et al. 2014), one fundamental aspect of business model. Despite this, less effort has been directed when it comes to consider the business model through a holistic lens or considering

other business model components apart from value capture (Beattie & Smith, 2013). For example, little is known on how firms used the various intellectual capital assets to leverage new forms of value proposition, new target markets or new sources of revenues. These changes represent the core of the business model innovation and are considered as key driver of sustainable competitive advantages in the current era affected by globalized markets (Del Giudice et al., 2019; Santoro et al., 2019).

As a consequence, the aim of this work is to explore the relationships between intellectual capital and business model. In order to do this, the present research builds on the systematic literature review (SLR) methodology, to trace what we know on this topic and to propose future lines of research based on the found gaps.

Two research questions have been proposed to investigate the linkages between intellectual capital and business model, and to explore possible future research trends of business and management studies regarding intellectual capital and business model.

From preliminary findings emerges that, regarding the first research question, it is possible to underline that, if we consider value capture as a fundamental element of the business model, the literature of its connection with intellectual capital is very rich. However, most studies have focused on economic value (Nielsen et al., 2017), neglecting social and environmental value. This represents a significant research gap, which allows us to answer the second research question. We currently live in an era in which there is great awareness of sustainability issues. Future studies should study how intellectual capital and its components can contribute to solving social and environmental problems and create value for different stakeholders (Porter & Kramer, 2019), not only for shareholders. For some years now, scholars have been talking about green intellectual capital (Chen, 2008). This stream of literature should focus on creating value, with a focus on the value created for the community, the environment, employees and the territory at large. Studies should focus on the role of knowledge, information and relationships in the development of business models that have a social and environmental impact. Moreover, future studies should further analyse the “dark side” of IC and value creation, aiming to identify why and how in some case intellectual capital assets could lead to a “value destruction”.

Furthermore, few studies consider the business model through a holistic lens (Beattie & Smith, 2013). Recent history sees many companies able to use their intellectual capital, knowledge, unique skills and dynamic capabilities to change their business model. However, the scientific literature on the subject seems to be very scarce. Studies should focus on companies' ability to create new products and value propositions, enter new markets, create new pricing models, through the use of their intellectual capital.

The paper offers the following main theoretical implications. First, it contributes to the well-established literature on intellectual capital (Nahapiet & Ghoshal, 1998) by shedding light on the current interconnections between intellectual capital and business model. Therefore, the study contributes to the intellectual capital literature by identifying several research gaps that should be filled by future studies. Moreover, the research underlines the key role of intellectual capital assets in driving business model innovation, which are increasingly important in the current hyper-competitive international markets (Beattie & Smith, 2013).

*Keywords: business model; intellectual capital; value capture; value creation; business model innovation.*

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## DETERMINANTS OF CAPITAL RATIOS IN EUROPEAN BANKS AFTER THE SOVEREIGN CRISIS

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### ABSTRACT

The aim of this study is to investigate the determinants of banks' capital ratios in Europe during the sovereign crisis period of 2011-2018. The literature has established patterns of determinants of capital ratios across several countries and during a significant period. However, this time is different. Banks had accumulated sovereign debt in their assets' portfolio, whereas their capital ratios had been relatively low during the pre-crisis period. The sovereign crisis followed a financial crisis which severely affected the financial sector. The volatility in sovereign debt risk was pronounced during the sovereign crisis. Our paper concludes that size and capital structure matters in explaining banks' capital ratios. Larger banks accommodate lower capital buffers, while both higher risk-weighted assets and higher leverage negatively affect Common Equity Tier 1 Capital. Surprisingly, profitability is not a driver of capital ratios during the sovereign crises in Europe. Low levels of profitability and considerable volatility may explain the inconclusive effect of profitability in enhancing banks' capital. Interestingly, our results support the hypothesis that quantitative easing packages enhanced banks' capital buffers, which suggests that the ECB's decisions effectively added to banks' capital requirements.

*Keywords: banks; capital ratios; sovereign crisis*

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# CONTEXTUAL ORGANISATIONAL AMBIDEXTERITY AND EMPLOYEE INNOVATIVE BEHAVIOUR: THE CASE OF AUSTRALIAN PUBLIC HEALTHCARE SERVICES SECTOR

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## ABSTRACT

## BACKGROUND

The Australian public healthcare services sector is facing growing pressure to achieve more with less, stimulating demand for increased innovation to provide better healthcare services (Sharma & Conduit, 2016). We argue that a strong focus upon contextual organisational ambidexterity (COA), underpinned by high involvement work systems (HIWS), may be particularly appropriate to encourage employee innovation in this large and complex sector. Evidence from other public sector contexts suggests that creating a culture of employee involvement and commitment, may lead to empowered healthcare workers able and willing to deliver significant healthcare innovations and new work procedures (Malik et al., 2017).

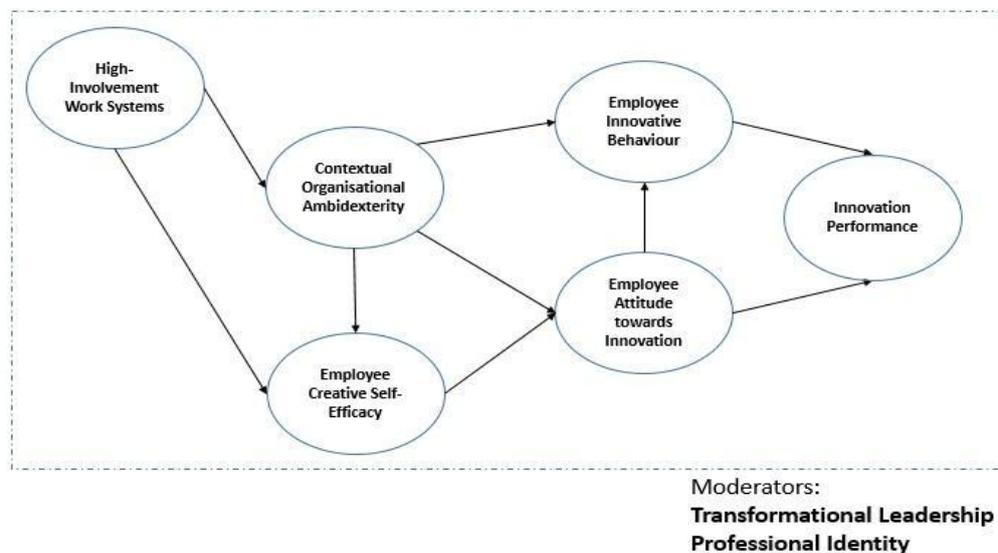
## THEORETICAL FRAMEWORK

Limited research exists on how to create cultural environments that motivate employees to pursue higher levels of innovation and enhance organisational performance. HIWS theory focuses on four key dimensions that may impact this environment: power/autonomy, information sharing between members of an organisation, rewards, plus knowledge and skills. A focus on these dimensions helps firms develop positive employee values and behaviours, as well as promoting work environments to achieve COA (Plimmer et al., 2017). COA is an innovative environment that encourages employees to simultaneously divide their time between exploitation (improvements in existing processes and procedures) and exploration (developing new innovations). In turn, COA may drive employee creative self-efficacy, employee attitudes towards innovation and employee innovative behaviour. Employee creative self-efficacy – an employee's self-belief in their ability to produce creative or innovative outcomes – motivates pursuing creative and innovative performance (Puente-Diaz, 2016). Employee attitudes towards a behaviour is an employee's attitude towards pursuing innovation. Finally, employee innovative behaviour is an employee's openness and willingness to engage in innovation, which may further promote positive COA. In sum, a presence of these three conditions

may be conducive to promoting COA and hence positively impact Australian public healthcare services innovation performance. This argument is modelled in Figure 1.

Two potential moderators that may affect the model's relationships are transformational leadership and professional identity. Literature suggests transformational leadership may be positively associated with COA (Lewis et al., 2014). Likewise, professional identity, defined as attitudes, values, knowledge and beliefs held amongst a professional group (Adams et al., 2006), has been found to be a moderating variable in high diversity work environments, such as that found in the Australian public healthcare services sector.

**Figure 1. Conceptual Framework**



## IMPLICATIONS AND FUTURE WORK

Identifying specific, critical conditions for improving COA in the Australian public healthcare services sector may guide senior managers and policy makers in the sector to focus upon what is most likely to promote better, innovative performance. A mixed-methods research design will be used to gather data to better understand the model's relationships in the Australian public healthcare services sector.

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## SUSTAINABLE DEVELOPMENT GOALS: IMPLICATIONS FOR GLOBAL BUSINESS STRATEGY

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### ABSTRACT

The global economy evolution under the influence of increasing importance of sustainable development builds a relatively new strategic framework embracing government, business and society (UN, 2015; Pedersen, 2018; Rosati and Fari, 2019). Thus, the study is an attempt to apply flipped approach to sustainable development strategies applications for small and medium sized enterprises (SMEs). Sustainable development represent a modern agenda 2030 for all stakeholders formulated by the United Nations and consists of 17 goals and 169 specific targets, indicators, and metrics of sustainability, which ensure balanced economic growth taking into account socioeconomic coordinates (UN, 2015). Businesses as a stakeholder have vital potential to contribute to achieving the SDGs through their core activities (Sullivan et al., 2018) and by implementing Corporate Social Responsibility (CSR) initiatives (Kumi et al, 2020). There are few literature streams to explore the role of enterprises in enhancing global sustainability within the context of their commercial activities (Sullivan et al., 2018), which mostly explore global businesses. The large businesses are entitled to integrated sustainability institutionally (Campbell, 2006) while tools to link the SDGs with the business processes of SMEs has not yet been clearly defined and regulated (Verboven and Vanherck, 2016). Researchers revealed that practices carried out by big companies could not be directly adopted and implemented by SMEs (Belyaeva, et al., 2020).

The presented research aims to reveal the most directed SDGs for SMEs and applying data of analytical agencies and organisations (Scott and McGill, 2019; Ogorodnikov and Remizov, 2019; ITC, 2020), primary research data conducted among 750 SMEs operating in six European (Belyaeva et al., 2020) to find out whether strategies of big and small companies differ in concepts of sustainable business transformation.

The study briefly outlined in the presented abstract is based on statistical comparative analysis applying the non-parametric U Mann-Whitney test to examine the significance of the differences between Western (Poland, Croatia and Russia) and Eastern European (Great Britain, Germany and Spain) SMEs. This method was chosen due to non-normal distribution and dispersion inequality.

The SMEs sustainable strategies are differ from big companies due to simplified and more organic organisational structure; have fewer stakeholders and less formalised management. Nevertheless, modern external factors influence the change in the business model and strategy of SMEs as well as big

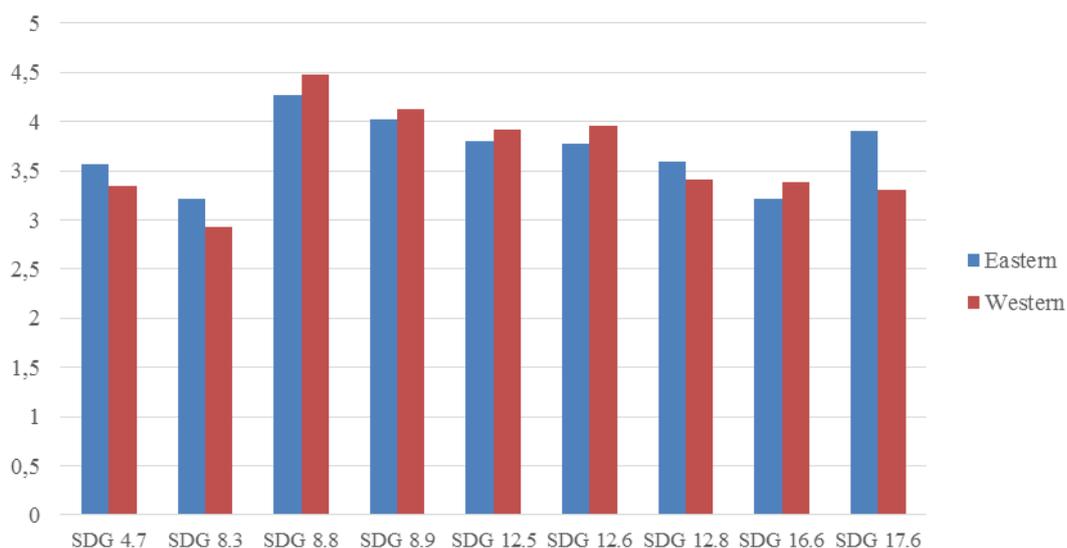
corporations. SME's representatives distinguish three important factors: (1) the importance of business intangible assets (image, loyalty) is increasing (2) competition is running high and (3) information and communication technologies (ICT) are developing, new electronic tools are emerging. In addition, external factors such as environmental regulations, labor rights laws, and pressure from company's stakeholders influence the business strategy and the overall process (Belyaeva and Lopatkova, 2020).

Our findings show the following: the lack of financial resources ( $\bar{X} = 3.59$ ), limited organizational capacity such as lack of time ( $\bar{X} = 3.38$ ) and knowledge on this subject ( $\bar{X} = 3.23$ ) constitute a barrier hindering SMEs sustainable strategies implementation, but in the same time the research outcome correlate with existent literature streams suggesting that SMEs potential contribution to sustainable development is large (Lessidrenska, 2019; Verboven and Vanherck, 2016).

While sustainable strategies of big companies are focused on a wide range of SDGs and transparent by presenting in reports, social networks, websites, rankings (Scott and McGill, 2019; Ogorodnikov and Remizov, 2019), the strategy of SMEs is covert and focused on a small amount of SDGs. Generally, we find that SMEs play a leading role in achieving sustainable goals related to the economy.

There are also differences in sustainable directions of SMEs depending on the country of origin, the presence of agile management and other factors. In this article the authors use the non-parametric U Mann-Whitney test was used to examine the significance of the differences between Western (Poland, Croatia and Russia) and Eastern European (Great Britain, Germany and Spain) SMEs. This method was chosen due to non-normal distribution and dispersion inequality. The priority areas for a sustainable SMEs strategy have been aligned with the SDGs and the difference between Eastern and Western SMEs is revealed (figure 1).

Figure 1 – SDGs goals in SMEs strategies in Western and Eastern European countries



The results show the different mix of economic, social and environmental processes in Western and Eastern European countries creates a special environment for the application of sustainable strategies. The results reveal that Western European SMEs are more active in responsible consumption and production (Goals 12.5 and 12.6) compared with Eastern companies because Western European companies reduce waste and save resources by implementation of lean production. Moreover, SMEs from Western Europe provide transparent information about the origin of the products components. At the same time, Eastern European SMEs involve stakeholders and organize employee training in social and environmental activities that people have relevant information on sustainability and acquire the knowledge necessary to promote sustainable development (Goals 12.8 and 4.7). Both Western and Eastern European SMEs focus on decent work and economic growth (Goal 8) in particular Western SMEs provide jobs primarily for local residents and ensure safe working conditions whereas European SMEs try to maintain Work Life Balance for their employees. Another difference lies in the fact that Western European SMEs strives to reach Goal 16 by improving internal management system and meet international standards, when Eastern European SMEs set cooperation with business partners based on ethical principles (Goal 17.6). However, despite the differences, the overall approach to sustainable strategies in SMEs in Western and Eastern Europe is built around the social and economic SDGs, largely excluding environmental goals.

In conclusion, there is awareness of the gaps in achieving the SDGs by 2030, besides, according to Sachs et al (2020) the Covid-19 will have profound implications on SDGs progress, and in short-term will have highly negative effects on SDGs 1, 2, 3, 8, 10. Thus, achieving the SDGs requires a strong public consensus, which implies collaboration and dialogue with all stakeholders. All enterprises can contribute to the achievement of the SDGs no matter how large or small companies and regardless of their industry. While the scale and scope of the SDGs is unprecedented, covering all areas of life on the planet, the fundamental ways that business can contribute remain unchanged. Thus, business model and strategy transformation is vital required towards set of social, environmental and economic SDGs (UN Global Compact, 2020).

*Keywords: Sustainable development, SDG, SMEs, Big companies, business transformation*

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## DO DOMESTIC FIRMS NEED TO LEARN FROM MNCs TO EXPORT? EVIDENCE FROM SWISS MANUFACTURING INDUSTRY

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### ABSTRACT

Our paper attempts to examine how domestic firms<sup>1</sup> manage to benefit from the export activities of large multinational corporations (MNCs). We analyze export spillovers from MNCs, in which export specific knowledge of MNCs that are experienced on foreign markets may spill over to domestic firms, improving their export performance. Multinational firm has a significant advantage over domestic firm since it can benefit from the existing international network of the entire corporation to start export operations and overcome the fixed costs induced by these activities (Blomström and Kokko, 1998). The contacts of domestic firms with export oriented MNCs provide both knowledge about the product and process technologies and international market conditions and access to foreign marketing and distribution networks – for example, foreign preferences regarding design, packaging, and product quality – raising the export and productivity performances in domestic firms through export spillovers.

The export activities of MNCs may benefit domestic firms when the export specific knowledge that MNCs are experienced on foreign markets may spill over to domestic firms, allowing them to reduce the cost of access to these markets. By learning from MNCs, domestic SMEs are likely to raise their export propensity or intensify their export volume.

Our paper analyzes export spillover effects from MNCs to domestic firms in terms of propensity and intensity. These effects have been studied by a number of scholars (Aitken et al., 1997; Greenaway et al., 2004; Ruane and Sutherland, 2005; Koeing et al., 2009; Giuliano et al., 2014; and so on), nonetheless, the empirical results are rather mixed and evidence on this kind of spillovers demonstrates considerable heterogeneity (Harasztosi, 2016). For example, Greenaway et al. (2004) supported the finding of positive export spillovers from the foreign affiliates' export operations on the export decision of domestic firms in United Kingdom. They also tested export spillover effects on the domestic firms' exported volume on which they failed to find a significant effect. Ruane and Sutherland (2005) also found that the decision by domestic firms in Ireland to enter the export market

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<sup>1</sup> Domestic firms used in this paper refer to exporting and non-exporting firms that are not investing in FDI. A great number of them is small and medium enterprises "SMEs".

is positively associated with the presence of foreign affiliates in their sector, while, their export intensity is negatively associated with the export sales ratios of foreign affiliates. In addition, Barrios et al. (2001) and Lutz et al. (2003) failed to find evidence on the probability those domestic manufacturing firms in, respectively, Spain and Ukraine will export following the export activity of MNCs' affiliates in the same sectors. Only other foreign affiliates benefit from export spillovers. Görg and Strobl (2003) failed as well to find evidence on export spillovers from MNCs or from other domestic firms in Spain between 1990 and 1998.

We argue that knowledge transfer is not an automatic process and the resultant spillover benefit depends on different key factors. First, it depends on the contact between the sender and the recipient of the knowledge. Domestic firms can enhance their exports when investing in learning activities by observing and imitating MNCs counterparts and/or reinforcing vertical linkages with MNCs' suppliers and customers. Export learning is more likely to be vertical than horizontal. That is, when domestic products are exported, foreign customers can suggest improvements to the manufacturing process (Grossman and Helpman, 1991). By doing so, foreign customers transmit tacit knowledge and sometimes knowledge from other suppliers (Wei and Liu, 2004). They also tend to transmit prototypes of exported products, knowledge of foreign markets and provide technical assistance to domestic users (Minska-Strusik, 2012). The knowledge received by domestic users would be spill over to other domestic forms (suppliers or customers) through vertical linkages. Second, knowledge would be transmitted more efficiently when the domestic receiver is located nearby the MNC sender and its transmission costs are assumed to increase with distance (Audretsch, 1998). Domestic firms in the same region observe and imitate foreign knowledge more efficiently than more distant ones (Aitken and Harrison, 1999). The channels of knowledge diffusion are then reinforced at regional level (Crespo et al., 2008). Third, we think that higher cultural and geographical distances may hamper the path of domestic international expansion, since exporting costs increase with destination's geographical and cultural distances (Lawless, 2010, Giuliano et al. 2014). MNCs that have multi-market presence would be then a valuable source of knowledge on foreign market, allowing domestic firms to export to the culturally and geographically distant destinations.

According to the above arguments, we expect the following hypotheses:

*H1. The presence of export spillovers on the export decision and the export volume of domestic firms is more pronounced with neighboring MNCs.*

*H2. Export spillovers on the export decision and the export volume of domestic firms are more likely to be vertical (from MNCs' suppliers and customers) than horizontal (from MNCs' counterparts).*

H3. *Export spillovers on the export decision and the export volume of domestic firms are higher as export destination's geographical and cultural distances increase.*

We test our hypotheses using firms-level data from manufacturing industry in Switzerland. Our data is derived from innovation activity survey (2015) of manufacturing firms, with at least five employees, conducted at the Swiss Institute for Business Cycle Research (KOF). Switzerland is an interesting case study since export is a preeminent activity in Swiss economy (BFS, 2016). More than a third of the turnover of Swiss manufacturing firms in 2015 (34.4%) was generated by exports, making manufacturing the most export-oriented industry in Switzerland (FTA, 2017). In addition, Swiss government, especially at canton level, is more and more active in encouraging export activities. And there has been no investigation of the potentially beneficial export spillover effects of MNCs on domestic manufacturing firms in Switzerland.

Our Probit and OLS regression results show that (1) domestic firms benefit from the presence of MNCs' exporters in their industry and from the export activities of their upstream MNCs' suppliers. This seems true for export propensity and intensity of Swiss domestic firms. The benefit from backward linkages is three time larger than that of horizontal effects. (2) Both horizontal and vertical effects are higher when spillovers are specific by destination and domestic firms do not seem to use the same channel when exporting to different destinations. The decision of domestic firms to enter European market is positively determined by the export activities of their MNCs' counterparts and suppliers attending the same market, while only the export activities of their MNCs' suppliers improve their export volume to this market. Domestic firms exporting to USA seems to benefit from export activities of their MNCs' counterparts in terms of export propensity and from their MNCs' customers in terms of export volume. And regarding Asian destination, domestic firms benefit from export activities of their upstream MNCs' suppliers to start exporting and from horizontal effects to intensify their export volume. (3) Spillover benefits seem to be larger when domestic firms decide to enter Asian and American markets. (4) The effect of spillovers does not seem to become stronger when MNCs and domestic firms are located in the same region. And (5) domestic firms need to invest in learning activities when absorbing foreign knowledge to intensify their export volume.

On the policy front, suggestions with respect to encourage export, following such findings, must consider that MNCs are important catalysts for the export performance of domestic firms. Horizontal and vertical linkages are both important for export intensity and propensity of domestic firms. Actions should encourage collaborations between domestic firms and MNCs to promote the flow of knowledge between firms and facilitate the assimilation and absorption processes. Nonetheless, they should consider the heterogeneity of domestic firms regarding the channel they choose to export to a

specific destination. In addition, domestic firms need to invest in absorbing foreign knowledge to successfully intensify their export volume.

*Keywords: Export, SMEs, Spillovers, knowledge transfer, vertical linkages, geographical distance, export destination*

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# INTERNATIONALIZATION AND MENA COUNTRIES: A SYSTEMATIC LITERATURE REVIEW

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## ABSTRACT

### LITERATURE GAP AND MOTIVATION.

According to the rapid evolution of the world's markets in the recent years, internationalization has become a fixed step for the development of the competitiveness of the firms (Chen *et al.*, 2016; Ferraris *et al.*, 2019; Gaur and Kumar, 2010). The concept of competitiveness itself has undergone re-conceptualizations and the economic and financial aspects are now accompanied by concerns related to sustainability in terms of social and environmental impact. According to this perspective, international marketing, which is a rather established domain of research, is called to evolve. The academic literature in this field has in fact focused its research on different sectors and different contexts (Skarmeas *et al.*, 2016; Vellas, 2016; Ibeh *et al.*, 2019), however, few research has so far focused on MENA (Middle Eastern and North African) countries<sup>1</sup> that represent a unique field of investigation for many reasons. First, in view of the growth prospects in terms of demography, employment and economy. Second, because of the transition that this macro-region is facing, according to which it is expected that the driving sectors of the future will no longer be linked to the exploitation of natural resources and fossil fuels. Third, MENA countries are characterized by specific geopolitical contexts, due to wars and cultural clashes, as well as highly uncertain environments and markets (McKee *et al.*, 2017; Woert and Martinez, 2018). A need to systematize previous research and to provide avenues for future research in internationalization and MENA countries emerges from the analysis of extant literature. Therefore, in this work, we aim to develop a systematic review to answer two main research questions: "What do we know and don't know about internationalization patterns involving firms in MENA context? What kind of convergence do exist between the internationalization behavior of these firms and the latest trends in international marketing research?"

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<sup>1</sup> According to the World Bank (2019), MENA countries are Algeria, Arabia Saudita, Bahrain, Djibouti, Egypt, United Arab Emirates, Jordan, Iran, Iraq, Israel, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Syria, Tunisia, and Yemen.

## METHOD

We searched within Clarivate's Web of Science and Scopus online databases and we included a common for both databases specific decennial-timeframe, covering years from 2000 to 2019. We implemented a search structure which operates within titles, abstracts, and keywords of journal articles as well (Aguinis and Glavas, 2012; Pisani *et al.* 2017). Based on those assumptions, we developed our keyword search algorithm, then applying the following search string: ("MENA" OR "middle east" OR "north Africa") AND ("international\*" OR "transnational\*" OR "multinational\*" OR "global\*") AND ("marketing").

The initial result amounted in an initial sample of 105 references by Scopus and 361 by Web of Science, for a total of 476 studies collected. The initial pool was then refined in order to discard duplicates, even if some specific exclusion criteria were already implemented in the research frame on database to distil the final data set. First, as a setting of database source, we only included articles published in peer-reviewed journals, as they are widely regarded as including validated knowledge, in the way it likely influences the field (López-Duarte *et al.*, 2016; Podsakoff *et al.*, 2005; Xiao and Nicholson, 2013). Second, following other systematic reviews (e.g., Christofi *et al.*, 2017; López-Duarte *et al.*, 2016) we excluded articles published in non-academic peer review journals, editorials, book chapters, commentaries, secondary articles, short communication articles, executive summaries, viewpoints, or conference proceedings. Third, we excluded articles published in a non-English language (Rashman *et al.*, 2009), due to language limitations of the researchers. As regards the following step, we collected the resulting items supported by a reference management software in order to complete a subsequent full reading of the abstracts to check for eligibility. In doing this, we excluded duplicated articles (37) and books or books chapter items (11) which still appeared after the former database refining, indicating our first partial amount in 428 studies collected. Then, we compared findings between publication sources with an objective ranking of academic journals such as Academic Journal Guide (AJG) by Chartered Association of Business Schools CABS (2018), selecting only academic articles which appeared on academic journals ranked "4\*", "4", "3" and "2". This criterion reduced our sample to 181 articles. Subsequently, we excluded 112 studies that were non-relevant to internationalization process of the firms, or that were marginally concerned in firms' patterns regarding internationalization in MENA region. After this screening process, 69 studies were admitted as relevant items to our review question. Next, following Rajwani and Liedong (2015) and Nofal *et al.* (2018), we employed a backward and forward snowballing process by manually searching the references of all selected articles. This additional step provided another 8 journal articles which were also subjected to the main inclusion or exclusion trial using title, abstract and sample analysis, and CABS ranking compliance as well.

## PRELIMINARY FINDINGS

The results of this study have been grouped in three sections: descriptive analysis, research streams analysis, and avenues for future research.

In particular, the first section reveals the distribution of the articles by year of publication, the distribution of the articles by journal, the journal areas of the sample of articles, the distribution of articles by geographical affiliation of the first author, the distribution of articles by paper nature and by methodology applied, the distribution of articles by sector of activity of firms in sample, and the distribution of articles by countries studied.

The second section analyses the research streams by individuating the theories, the components and tools applied, and the research output. In this regard, streams in research sample clearly polarize on three main threads, such as internationalization & MNEs strategies, finance, and resource capabilities and knowledge management, while only little part of global extant literature in sample faces threads such as innovation and digitalization, human resources management, entrepreneurship and small business management, and ethics and corporate social responsibility.

The third section suggests, according to the findings and the trends in internationalization research in MENA countries, avenues for future research. Some of the future lines of research are:

- outward strategies in MENA countries: most of the companies aiming to internationalize outside the MENA countries are moved by push factors. Companies headquartered in MENA countries are in fact often called to deal with uncertain conditions due to growing competition in internal markets (also due to the entry of MNEs), to contexts of war, political instability, or market closure. Consequently, they are subject to push factors that push them to operate even outside the original context. Indeed, it might be interesting to analyse how exogenous and endogenous factors may influence outward internationalization strategies in MENA countries. In this regard, the combination of different theoretical approaches such as institutional theory and resource-based view could provide novel answers and enrich the results.

- explore the links between the international marketing area and research streams in related disciplines: the systematic review reveals how the financial and strategic domains have been the most addressed so far. However, there is still a paucity of studies in up to date disciplines that are related to marketing and internationalization. Further studies should therefore analyse the phenomenon of internationalization in MENA countries by exploring the links between marketing and other disciplines such as innovation, digitalization, human resources management, entrepreneurship and SMEs, ethics, and sustainability.

- comparison between internationalization in MENA countries and traditional internationalization research: due to the reduced number of studies which focus on aspects such as human resource

management, entrepreneurship, digitalization, and ethics, further studies should adopt as starting point the traditional literature on internationalization to analyse similarities and differences between the established literature and the emerging research stream related to the MENA countries.

*Keywords: internationalization, MENA countries, marketing, cross-disciplinarity, systematic literature review.*

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# CORRELATION OF WOMEN QUOTA AND PROFIT MEASURED BY EBIT OF DAX 30 COMPANIES

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## ABSTRACT

Over the last 50 years women made significant advances in the participation in executive boards of international companies. Looking to German DAX 30 companies women remain underrepresented in leadership positions.

The present paper examines the relationship between gender quota and financial performance based on the Key Performance Indicator (KPI) of the Earnings before Interests and taxes (EBIT) of DAX 30 companies. The correlation of EBIT is worked out and the women quota is measured for DAX 30 companies to identify independencies and trends.

## INTRODUCTION

This paper offers insights into the relationship between gender quota of Germany's largest listed companies, DAX 30, and the financial KPI EBIT. For this purpose the paper builds upon existing literature on gender management, women quota and statistical analysis, etc. Thus, the paper contributes to an enhanced understanding of the business environment of some of the most powerful German companies and the progress made regarding women presence on executive boards.

## LITERATURE REVIEW

In 2016 a starting point of the women quota of 30 percent in supervisory boards should be achieved by publicly traded companies, which are also fully obliged to employee co-determination (BMFSFJ, 2017). The women quota was optional but determines the importance of female representation on executive boards. Perryman *et al.* (2011) argued about the risk of gender differences on firm performance, while Gassam (2018) discussed measures to increase female leadership. In this context, the following hypothesis is formulated and will be dealt with in the following sections:

H1: The higher the women quota in executive boards of DAX 30 companies, the higher the financial success measured by EBIT.

## METHODOLOGY

DAX 30 was selected as one of the most important financial indexes in Germany. It comprises the 30 largest companies in terms of EBIT. In order to show the correlation in the statistical analysis for the women quota and EBIT, data was collected from the websites of DAX 30 companies, and especially from their annual reports.

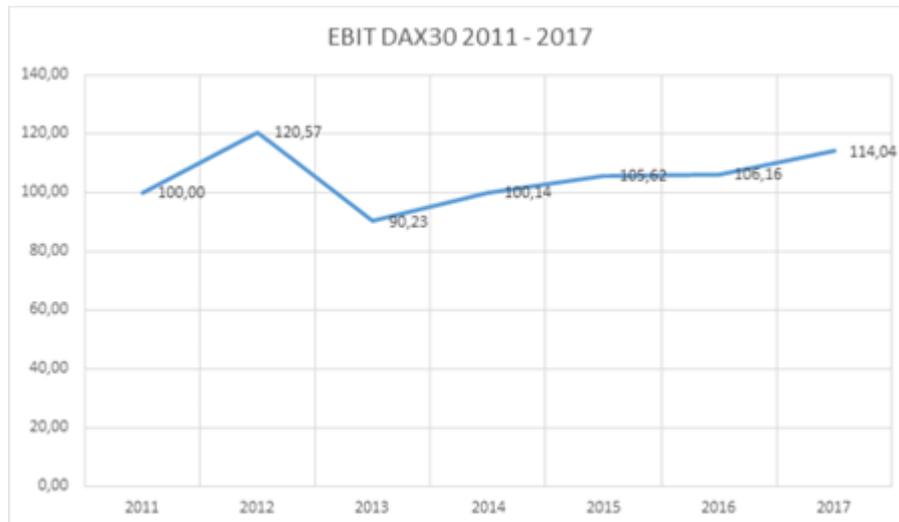


Figure 14: EBIT development of DAX 30 from 2011 – 2017 in percentage

## FINDINGS

Since 2011 when DAX 30 companies voluntarily committed to increase female representation at board level, there is a visible progress registered, which shows a constant increase over the years from 2011 - 2017. To obtain a more detailed a categorization on the basis of sectors of activity was created.

|   |   |  |
|---|---|--|
| <b>Automotive Sector:</b><br>BMW<br>Daimler<br>Lufthansa<br>Volkswagen<br>Continental | <b>Chemical Sector:</b><br>BASF<br>Bayer<br>Linde                                     | <b>Energy Sector:</b><br>EON<br>RWE  |
| <b>Medical Sector:</b><br>Fresenius<br>Fresenius Medical Care Merck                   | <b>Industrial Sector:</b><br>Covestro<br>Heidelberg Cement<br>Siemens<br>Thyssenkrupp | <b>Financial Sector:</b><br>Allianz<br>Commerzbank<br>Deutsche Bank<br>Deutsche Börse<br>Munich Re |
| <b>Retail Sector:</b><br>Beiersdorf<br>Adidas<br>Henkel                               | <b>Service Sector:</b><br>Deutsche Post<br>Deutsche Telekom<br>Vonovia                | <b>Technology Sector:</b><br>Infineon<br>SAP   |

Figure 2: DAX 30 companies integrated into nine sectors

The woman quota has the highest value in the financial sector (18,75%) followed by the industrial sector (16,67%) in 2017.

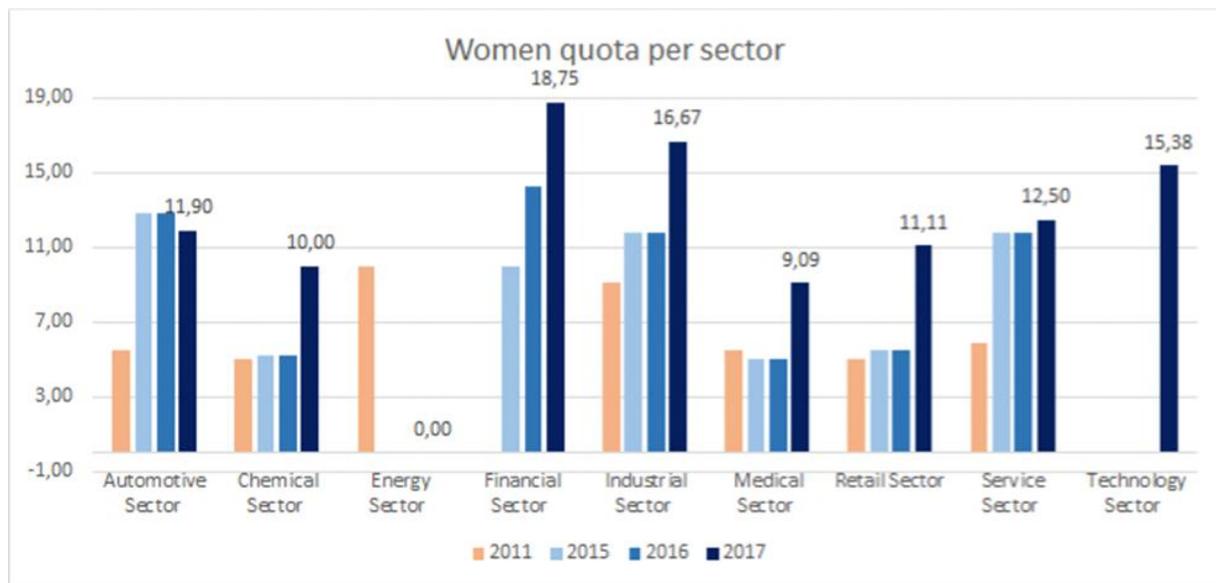


Figure 3: Woman quota of DAX 30 companies per sector

## DISCUSSION OF RESULTS AND CONCLUSION

The statistical analysis conducted in this paper has shown that the raised hypothesis can be supported. Having a specific number of female leaders as a strategic company goal could create benefits as far as EBIT is concerned. Companies like Adidas, Fresenius Medical Care Merck or VW have already recognized the importance and employed a Chief Diversity Officer (CDO) who reports directly to the executive board.

*Keywords: women quota, financial success, EBIT, gender management*

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# WOMEN QUOTA OF DAX 30 COMPANIES AND THEIR CORPORATE SUSTAINABILITY REPORTING

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## ABSTRACT

The promotion of women on boards caused heated public and governmental debates and scholars became interested too in the investigation of the impact of mixed boards on companies' financial performance, decision making, boardroom culture, etc. The present paper examines the relationship between gender quota and sustainability reporting based on Global Reporting Initiative of DAX 30 companies and it develops a women in management (WIM) index based on the importance of gender related subjects as displayed by DAX 30 companies in their sustainability reports.

## INTRODUCTION

This paper offers insights into the relationship between gender quota of Germany's largest listed companies, DAX 30, and sustainability reporting. For this purpose the paper builds upon existing literature on diversity management, corporate governance, Global Reporting Initiative (GRI), women quota regulations, etc. Thus, the paper contributes to an enhanced understanding of the business environment of some of the most powerful German companies and the progress made regarding women presence on boards.

## LITERATURE REVIEW

In 2011 Germany's largest listed companies, DAX 30, committed voluntarily to increase female representation by setting self-imposed targets. As the progress was slow, in May 2015 "The Equal Participation of Women and Men in Leadership Positions" law was passed, requiring that starting with 2016 a women quota of 30 percent in supervisory boards should be achieved by publicly traded companies, which are also fully obliged to employee co-determination (BMFSFJ, 2017). The importance of female representation on boards can be determined also by analysing the sustainability reports of companies and here GRI Standards play an essential role as the guidelines are not only a means for companies to "understand and communicate the impact of business on critical sustainability issues" (globalreporting.org), but they also represent an international framework which facilitates comparisons of companies' reports be it at national level or in different countries. Leach *et al.*, 2016 (p. 4) argued that "gender equality must be integral to sustainable development", while the European Commission (2015)

indicated that “not taking advantage of skills of highly qualified women constitutes a waste of talent and a loss of economic growth potential”. In this context, the following hypothesis is formulated and will be dealt with in the following sections:

H1: Companies which frequently bring forward gender related topics in their sustainability reports, also attain higher women quota on their boards.

## METHODOLOGY

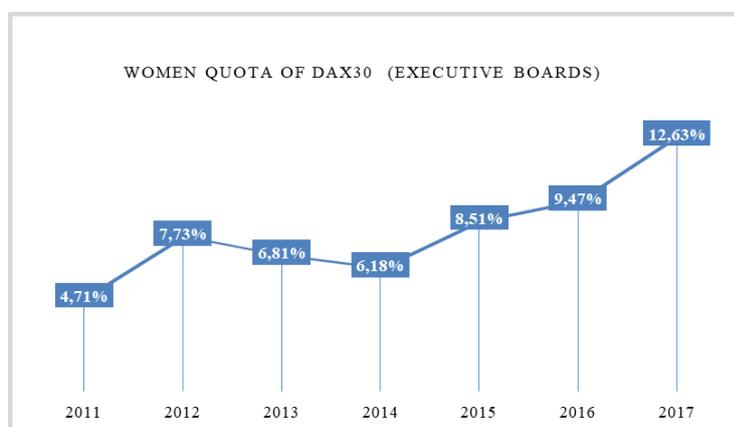
DAX 30 was selected as one of the most important indexes in Germany. It comprises the 30 largest companies by exchange turnover and market capitalization, and it “acts as a key indicator for the strength of the German economy” (deutscheboerse.com). In order to conduct the statistical analysis necessary for determining the women quota and the frequency of gender related topics, data was collected from the websites of DAX 30 companies, and especially from their annual reports. The GRI reports (and other sustainability reports) were scanned for the terms “women”, “gender equality” and “women quota” (“women” keywords). The total number of hits was afterward divided by the total number of hits of GRI specific keywords: “economic”, “environment/al” and “social”. The following table gives a short insight of the WIM index for the company BASF.

| No. of hits for “economic” | No. of hits for “environment/al” | No. of hits for “social” | Σ of hits “economic”<br>“environment/al”<br>“social” | Σ of hits for<br>“women” keywords | WIM index |
|----------------------------|----------------------------------|--------------------------|--|-----------------------------------|-----------|
| 37                         | 69                               | 97                       | 203  | 24                                | 11.8%     |

**Table 15: WIM index of the company BASF**

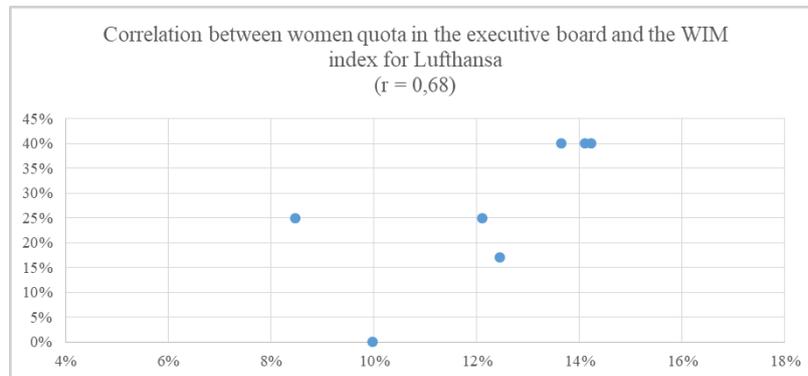
## FINDINGS

Since 2011 when DAX 30 companies voluntarily committed to increase female representation at board level, there is a visible progress registered, yet it is still a long way to go up to gender parity.



**Figure 1: Women quota across all DAX 30 companies in the executive board**

At supervisory board level the introduction of the mandatory women quota is effective as also showed by Holst and Wrohlich (2018), DAX 30 companies reaching in 2017 33,3 percent. When conducting a correlation analysis between the WIM index and the women quota for single companies as in the following example (company Lufthansa, data for 2011-2017), a strong correlation was found.



**Figure 2: Correlation between women quota and WIM index of Lufthansa**

## DISCUSSION OF RESULTS AND CONCLUSION

The statistical analysis conducted in this paper has shown that the raised hypothesis can be supported. In the same time, a certain caution is recommended as companies might write extensively in their sustainability reports about the importance of women and diversity in their companies, while not having any women on the management board.

*Keywords: women quota, Global Reporting Initiative (GRI), diversity management, corporate sustainability reporting*

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## RECENT DIRECTIONS IN INTERNATIONAL BUSINESS EDUCATION

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### ABSTRACT

Multinational firm managers and professionals around the world are constantly facing new challenges, dealing with global issues, foreign cultures, technological changes, social trends, and political shifts, in order to make appropriate decisions. This article will aim to analyze how the international business manager and professional is being instructed at the higher education level and how the curriculum is being configured to convey relevance in such global context. We revise the direction that education of the human resource in international business has taken in the past 30 years and how its set of dimensions have evolved over time. Thus, this study identifies how the competencies required to perform in international business have evolved, as well as how the pedagogical perspectives have changed to cope with practical requirements. In addition, we show how the contents on geographical markets have shifted in importance due to development and growth patterns of the world. And finally, we observe how all of this has put pressure for the schools' structure to adapt in order to accommodate the increased relevance of international business programs.

### INTRODUCTION

There is an ever-growing concern around the world about the education of the international business manager, either from the perspective of pedagogy applied to the international business (IB) discipline as such, or from the incorporation of 'international' elements into the business administration discipline. Thus, we have sought to understand what sort of inputs must be considered in building an exceptional curriculum and successful educational strategies in the formation of an international business manager capable to excel in such challenging context. For this purpose, we have reviewed the scope of the mainstream trends in international business education that have been portrayed by researchers who in recent years have studied the problems and trends of the discipline. These contributions of theoretical and empirical nature are showing the technological and pedagogical changes of education at a global level, as well as the new challenges of the international business professional. Consequently, this article shows the results of a review of the reach, in the past 30 years, of research in education for global business; we describe the changes and evolution of 1) the key competences of interest in global management, 2) cultural competences required, 3) the pedagogical perspectives and tools, 4) the transitory geographical focus, and 5) the programs and schools'

structures and configuration. With these contents, we aim to contribute to business administration themes by providing insight on how a broad range of international business concerns must be a part of the education of managers across the world.

Hence, to illustrate the evolution of this discipline, we have reviewed the main international journals in the areas of international business studies, global strategy, human resource management, international business education and global business education, by searching published articles since 1990, for key terms in education, teaching and skills associated with the construction of the international business administration curriculum.

## EVOLUTION OF INTERNATIONAL BUSINESS EDUCATION

As a result of this exploration, we have found five major aspects that have evolved to shape the discipline today. We have separated this evolution into three great decades, with some flexibility, to locate the emergence or consolidation of specific trends, as detailed in Fig. 1.

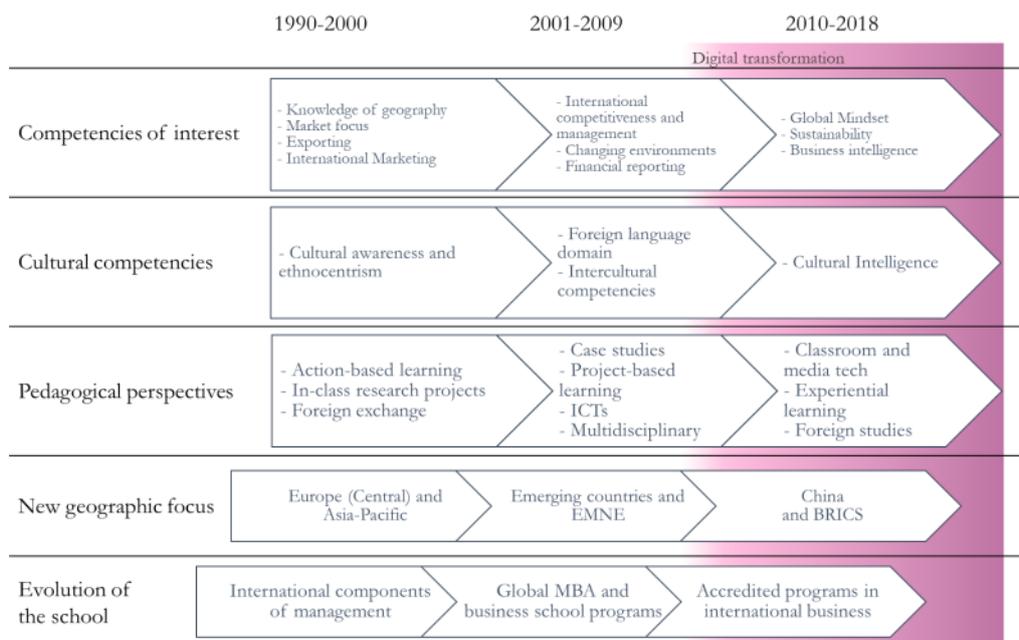


Fig. 1. Trends in International Business Education

First, we reveal the competences in which the interest of IB training schools focused, noting how themes moved from technical and 'how to do business abroad' issues (Wardrope *et al.*, 2009), then to issues needing superior analytical skills, and to elevated ethical and technological themes (Czinkota, 1994). From these competencies we have extracted the cultural component as a special category, which evolved from mere cultural awareness (Mathews, 2006; Andresen y Bergdolt, 2017) in the nascent years to cultural intelligence in recent times (Aggarwal y Goodell, 2014).

Second, we present the changes in the tools and the pedagogical perspectives applied over the years, which started as traditional business teaching methods (Danford, 2006; Folks, Jones y Hudgens, 2011)

and evolved into IB special techniques such as international experiential learning (Budde-Sung, 2011). Third, we note how the interest in learning 'how to do business with a specific location' shifted from Europe, to emerging markets to China and the BRICS specifically. And finally, we show the emergence and transformation of specific programs in international business, which departed from being a component of management to become a separate discipline with accredited undergraduate and graduate programs on its own (Wardrope et al., 2009).

In addition to these components we identified that most recently, the fourth industrial revolution and digital transformation are key issues affecting every aspect of the international business professional work and their developmental process (Akdeniz, Zhang y Cavusgil, 2019). Thus, we also explore how these digitalization phenomena are impacting the IB manager competences, and geographical focus, as well as the schools' pedagogical perspectives and its structure's evolution (De Beule *et al.*, 2019).

## CONCLUSIONS

This article has aimed to analyze, from a scholarly perspective, how the global-minded manager, that is, the international business professional, is being trained and delivered to the global environment of business. We observed how the human resource in international business have been educated in the past 30 years. We have observed that not only the competencies required to perform in international business have evolved, but also, that pedagogical perspectives have changed to cope with practical requirements. In addition, geographical markets have shifted in importance due to development and growth patterns. In consequence, all of this has put pressure for the schools' structure to adapt in order to accommodate the increased relevance of international business programs. In sum, we contribute by drawing the international business education landscape and exposing how it is impacting the quality and relevance of the human resource in charge of leading globally oriented organizations.

*Keywords: International Business, International Human Resource Development, Business Education, IB Education*

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## WHO DOES JOIN THE ANTI-BRAND COMMUNITIES ON THE INTERNET?

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### ABSTRACT

In recent decades, there have been countless negative feelings about brands with very significant impacts on companies and especially on the value of brands, so it is extremely important to be able to deal with them in the context of management (Zarantonello *et al.*, 2016). Negative consumer emotions about brands arise from stimuli that may be associated with products or services (tangible elements) or branding elements (intangible elements) (Romani *et al.*, 2012); moreover, with the growing opposition to capitalism and corporate globalization, an increase of anti-brand communities has been observed (Awasthi *et al.*, 2012; Carvalho and Fernandes, 2018; Kucuk, 2018).

In the specific context of the anti-brand communities, members have negative feelings towards a particular brand, and very often their focus is the pursuit of social justice, being activists of global anti-brand movements (Hollenbeck and Zinkhan, 2010).

In these cases, consumers resist capitalism, globalization, marketing efforts, and strategies of a corporate brand, trying to create a new collective identity (Awasthi *et al.*, 2012). (Hollenbeck and Zinkhan, 2010; Romani *et al.*, 2015). As opposed to this thinking, other members simply integrate these communities due to functional issues of products and/or services (Kucuk, 2008) based on negative past experiences (Bryson *et al.*, 2013, Zarantonello *et al.*, 2018).

In summary, anti-brand communities usually arise due to four reasons (Awasthi *et al.*, 2012):

1. Provide a social community where members share common moral obligations;
2. Provide a support network to achieve common goals;
3. Provide a way to deal with workplace difficulties, fighting for labor rights;
4. Provide a resource center for action, through demonstrations or boycotts.

Whatever the reasons, anti-brand communities aim to weaken a hatred brand, reduce its value, cultivate a feeling of revenge (Grégoire *et al.*, 2009; Cooper *et al.*, 2019).

On the Internet domain, this aggregation of consumers takes the twofold form of anti-brand websites and interest groups on social network platforms (Facebook, Instagram, Twitter). Recently, the growing popularity of social networks has increased the opportunities for consumers to connect with other users, share opinions and information, conditioning purchase intentions and behaviors of other consumers (Hennig-Thurau *et al.*, 2004; Chang and Wu, 2014; Mirbagheri and Najmi, 2019). Moreover, another interesting phenomenon is that individuals now rely more on their peers than on the

companies themselves to obtain information about products and/or services (Gavilan *et al.*, 2018). The interactions that exist in technological platforms facilitate the decision-making process of the purchase of a good or service are the main sources of social influence in this process (Amblee and Bui, 2011). In this way, the academic literature indicates that consumers have the capacity to influence each other (Cialdini and Goldstein, 2004), being the Internet the environment in which this phenomenon is more explicit, since this influence is omnipresent and exercised through recommendations, evaluations and verbal evaluations (Amblee and Bui, 2011).

Despite this phenomenon is increasingly present in our society and shows great relevance to the management, the available literature on the anti-brand communities on the Internet is very scarce (Krishnamurthy and Kucuk, 2009; Zarantonello *et al.*, 2016). Moreover, no studies have been conducted so far on the analysis of the profile of who participates in an anti-brand community.

On the basis of these premises, this study aims to provide useful insights on the anti-brand communities on the Internet, investigating the profile of the consumers who join anti-brand communities; in particular, after splitting consumers with negative feelings into two categories based on their participation to anti-brand community or not, the main purpose is to investigate whether several consumers' characteristics (sex, age, country of origin, education and empathy) affect the willingness to join an anti-brand community in the social networks' domain.

In order to achieve this purpose, an empirical study will carry out based on a survey on consumers of the ten strongest global brands, identified through a preliminary study as follow: *Apple, Google, Coca-Cola, Microsoft, Samsung, IBM, Toyota, General Electric, Amazon, Mercedes*.

Subsequently, the following research hypotheses will be tested through statistical tools:

*Hypothesis 1:* Consumer profile (gender, age, country, education and empathy) influences the intensity of consumer negative feelings towards brands.

*Hypothesis 2:* Consumer profile (gender, age, country, education and empathy) influences the willingness to integrate anti-brand communities on the internet.

*Hypothesis 3:* The more empathic a consumer is, the greater their sense of brand hatred.

*Hypothesis 4:* Consumers who consider joining an anti-brand community are those who hate brands the most.

*Hypothesis 5:* Consumers who hate brands the most are those who have an active participation in anti-brand communities.

The originality of this study refers to the specific place on the Internet where anti-brand communities are investigated, i.e. the social networks; moreover, as far as the authors know, there are no previous studies focusing on the consumers' profile as a conditioning factor in the choice of whether or not to join an anti-brand community. The findings of this study could provide an interesting contribution to

the branding theory since identifying the profile of the consumers joining anti-brand communities on the Internet helps to better understand the phenomenon of negative consumer-brand relationships. Lastly, the study findings could provide useful inputs for brand managers in order to keep under control the wide range of consumer-brand relationships, and identify how to communicate better with the market to minimize the risks of a negative perceptions of material and immaterial dimensions of the brand.

*Keywords: negative feelings; negative consumer-brand relationships; brand hate; anti-brand movements; anti-brand communities; anti-brand websites; social networks.*

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## INTERNATIONALIZATION OF DIGITAL FIRMS: A SYSTEMATIC LITERATURE REVIEW AND FUTURE RESEARCH AGENDA

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### ABSTRACT

Over the past decade, digitalization has fundamentally transformed and revolutionized how companies conduct business internationally (UNCTAD 2019). When Marriott hotel was founded in 1927, it took the company more than 40 years until its first international expansion and almost 100 years to expand into additional 132 countries while owning approximately 1.4 million hotel rooms (Marriott 2019). In contrast, Airbnb expanded to more than 220 countries within the last 12 years while not owning a single room (Airbnb 2020). These fundamental differences in the internationalization speed and entry mode can be attributed in most parts to Airbnb's use of a platform business model and, thus, to the underlying digital technology (Nambisan et al. 2019; Brouthers et al. 2016).

Digitalization has challenged the academic foundations on which the field of international business (IB) resides (Eden 2016) by changing the nature of the internationalization process in terms of entry mode choice, speed, scale, and scope (Coviello et al. 2017). The integration of digitalization into the IB field is rather novel as scholars have just recently started to acknowledge the new digital reality as a new context for IB and initiated the adaption of certain assumptions and theories relevant to the field (Alcácer et al. 2016; Banalieva and Dhanaraj 2019; Autio and Zander 2016). This paper sets out to provide a comprehensive review of IB literature and its adjacent academic fields in the context of digitalization by identifying established concepts, contradictions, and avenues for future research.

In recent years, academics have started to integrate digitalization into the IB field selectively. Due to digitalization, scholars started to theorize about network-based ownership advantages as a new type of firm-specific advantage (FSA) within internationalization theory (Banalieva and Dhanaraj 2019; Buckley and Casson 1976). Similarly, multiple authors challenge the mechanisms and implications of the process theory of internationalization (Johanson and Vahlne 2009), within the context of digital firms (Nambisan et al. 2019; Brouthers et al. 2016; Monaghan et al. 2020). Enhanced flexibility, scalability, and automation, combined with user network effects and the ability to directly engage with stakeholders, provoke a new kind of internationalization process (Monaghan et al. 2020). This process is more time-compressed, broader in scope, and more resource-light, therefore challenging the relatively slow and incremental foreign expansion suggested by the process theory of internationalization (Nambisan et al. 2019) Monaghan et al. 2020).

While the examples above display how scholars have selectively commenced integrating the new digital reality into existing IB theories, their endeavours are starting to lay the foundation for systematic and comprehensive integration of digitalization into the IB field. However, the lack of a well-defined research agenda delimits our current understanding of the phenomenon. Therefore, this literature review sets out to provide a comprehensive understanding of the relationship between digitalization and internationalization. By doing so, this paper acknowledges existing research accomplishments, unveils contradictory propositions and findings (e.g., (Banalieva and Dhanaraj 2019); (Hennart 2019)), and identifies potential gaps for research extension.

To conduct a systematic literature review, we searched the Web of Science and Scopus databases for articles that contain the terms 'digitalization' and 'internationalization' in their topic field and were published in leading business journals (based on SSCI impact factors  $\geq 1.5$ ). Additionally, we review major business journals in the IB field, as well as the reference sections of the already identified articles for further articles.

This literature review advances IB theory in three ways: First, it gives a comprehensive overview of established findings regarding the integration of digitalization into the internationalization literature. Second, it carves out existing inconsistencies and contradictions that inform potential gaps and shortfalls in existing IB theories. Third, it offers a detailed agenda for future research directions in order to advance the integration of the new digital reality into IB theory. Lastly, this paper provides essential implications for managers of multinational companies by furthering their understanding of the interplay between digitalization and internationalization. Thereby, we provide valuable practice insights into how digitalization can be leveraged to improve internationalization performance and how to design and implement digital internationalization strategies.

*Keywords: Digitalization; Internationalization; Review; Research agenda*

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# INFLUENCE OF RELIGION ON INTERNATIONAL MARKETING. A SYSTEMATIC REVIEW

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## ABSTRACT

## INTRODUCTION

The effects of religion on consumer behavior have been explored by various studies. Mathras et al. (2016) define four dimensions of this relationship: beliefs, rituals, values, and community, while Agarwala et al. (2019) highlight that faith affects some behaviors linked to materialism, intolerance, ethics, risk aversion as well as consumer attitude toward religious products and economic shopping behavior. Brammer et al. (2006) stress that religious subjects have a broader conception of social responsibility of companies, while Raimi et al. (2013) underline that the three monotheistic religions' (Christianity, Islam and Judaism) ethics and values could represent important elements to develop CSR actions; similarly Cornwell et al. (2005) analyzed, in cross-cultural study, differences in idealism and relativism among Christian, Muslim and Buddhist consumers. Marketers have to pay attention to religion precepts especially in international marketing perspectives: for example in Judaism, Islam, Hinduism and Buddhism certain kinds of food are forbidden (it is sufficient to think about pork meat for Muslims) while Christianity does not limit food consumption (Sack, 2001). Moreover, similarly, study by Pettinger et al. (2004) reveal the impact of religion on consumer behavior, in particular on food choices. The relevance of faith on consumers' choices is further shown by the existence of certifications such as Halal for Muslims and Kosher for Jews, which are essential to drive religious consumers to purchasing choices consistent with religion principles. Recently Mahbubi et al. (2019) studied Muslim clusters about meat consumption in Indonesia, finding four characteristics which are more required by these consumers, that are sanctity, clarity, quality and safety: marketing implications are clear, for example the cluster who paid more attention to sanctity prefers this order of attributes: red color, flavor, fibrous, a halal label placed in front on the top of the packaging, clean, zero contamination, latest production.

## OBJECTIVES

This study is aimed at exploring through a systematic review the state of the art of scientific literature with regards to the impact of religion on consumer behavior in an international marketing perspective.

This is an ongoing research that will be organized in three main sections, as in Tracey (2012): a first part dedicated to reviewing literature on religion and consumer and companies attitude; then reviewing systematically the most relevant articles on religion present on international marketing journals; finally directions for future research will be proposed. This methodology is particularly suitable because it allows “to identify, select, critically evaluate and synthesize extant literature in a rigorous, transparent and replicable manner, leading to robust conclusions about what is known and not known in the reviewed research area (Vrontis and Christofi, 2019).

## SUMMARY OF THE SYSTEMATIC REVIEW

The keywords we selected for this aim are: religion and international marketing. At this step platforms used to search for this relationship in literature were Science Direct and Web of Science. The whole numbers of publications found are 5,737, including journal articles, books and conference proceedings. Most of them are written in English (4,055), followed by French (127) and (31) and Portuguese (8). In terms of publication types they mostly belong to journals (4,273), chapters (1,458), books (4) and conference proceedings (2). This is the list of journals most represented, interestingly tourism ones are the first ones.

*Table 1: Most represented journals*

| Journal                         | Number of articles |
|---------------------------------|--------------------|
| Annals of Tourism Research      | 180                |
| Tourism Management              | 172                |
| Journal of Business Research    | 121                |
| World Development               | 97                 |
| Business Horizons               | 92                 |
| Social Science & Medicine       | 85                 |
| Long Range Planning             | 67                 |
| Public Relations Review         | 66                 |
| Tourism Management Perspectives | 58                 |
| Futures                         | 55                 |
| International Business Review   | 52                 |

As shown in Table 1, pure marketing journals are not present in this “top 10” list; they are represented, after 20th place by Journal of Destination Marketing & Management (29 articles), Industrial Marketing Management (27), Journal of Retailing and Consumer Services (24) and International Journal of Research in Marketing (24). First three authors in terms of contributions are James D. Wright, John Swarbrooke and Paul B. Baltes. Production of publications is balanced throughout the years (recently the most represented years are 2019 with 340 articles and 2018 with 318). Countries more involved in these publications are China and India.

**Gaps:** In current literature marketing journals are little represented. Moreover this systematic review represents the first one to highlight the relationship between religion influence in an international

perspective. In the past similar systematic reviews have deepened the relationship between religion and food consumption (Naeem et al., 2019) or between religion and sport (Waller, 2016) but no with international marketing.

*Keywords: religion, consumer behavior, international marketing, systematic review*

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# INFLUENCE OF RELIGION ON INTERNATIONAL MARKETING. A SYSTEMATIC REVIEW

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## PROACTIVE RESILIENCE IN WOMEN-LED WINERIES

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### ABSTRACT

Resilience, commonly understood as “an attribute that defines individuals who are able to thrive with difficulties and uncertainties and to feel better after something unpleasant happens” (Conz and Magnani, 2019: 1), is a characteristics that increasingly important in this fast-changing and uncertain world (Branicki et al., 2019). However, as recent literature reviews on the theme (Conz and Magnani, 2019; Linnenluecke, 2017) points out, resilience is not a one-size-fits-all-concept, but it is heterogeneous. For example, Conz and Magani (2019) have distinguished among four categories of resilience based on when the event occurs: resilience as a proactive attribute (before event occurrence), resilience as absorptive and adaptive attributes (during event occurrence), resilience as reactive attribute (after event occurrence), and resilience as dynamic attribute (before, during and after an event).

This paper focuses on proactive resilience, i.e. “an attribute that firms possesses before an event occurs” (Conz and Magnani, 2019: 5), and advances the concept arguing that proactive resilience is made up by two dimensions: a first, inward looking dimension, referring to the willingness of the firm to survive in the long run and a second, outward looking dimension, referring to the attitude of the firm to be environmentally sustainable.

The paper investigates the antecedents of proactive resilience disentangling the impact of two different firms’ sets of goals, namely quantitative (i.e. search of higher turnover, higher profit, more employees and new markets) and qualitative (i.e. being innovative, reinforcing the brand, reinforcing the relationship with other firms and improving the quality of the products/services) growth goals, and looking at these relationships in women- and non-women-led businesses. In fact, lot of studies have shown that gender diversity influences entrepreneurial process (Morris et al., 2006), business behaviors, processes and outcomes (Buttner and Moore, 1997; Danes and Olson, 2003; Danes et al., 2009; Nielsen and Börjeson, 2019; Stanford et al., 1995).

In advancing our hypotheses and conscious that resilience has been studied from different theoretical angles (Linnenluecke, 2017), we moved from the goal setting theory according to which an individual set a goal and this influences the effort in accomplishing that goal and, in turn, performance (Locke, 1996) and we test the following hypotheses:

*Hypothesis 1: Quantitative growth goals will positively influence proactive resilience*

*Hypothesis 2: Qualitative growth goals will positively influence proactive resilience*

The sample of this study consists of 167 questionnaires that were collected between June and December 2019. The questionnaires were sent to 800 wineries that belonged to a Wine Association at the Italian level.

The results of the path analysis show that different goals types influence resilience on the basis of whether the business is women- or no-women-led. More precisely, in women-led businesses, quantitative growth goals positively influence the proactive resilience, while in non-women-led businesses, only qualitative growth goals matter. Post-hoc analysis was also performed on individual-level characteristics.

This study presents a threefold contribution shedding light on the scanner investigated proactive resilience (Conz and Magnani, 2019), distinguishing between qualitative and quantitative goals growth and shedding light on two individual-level characteristics that might influence resilience (i.e. having previous work experience and entering the business due to passion or partner).

Limitations are linked to the fact that we talked about women- and non-women-led (not owned) businesses and we focused on Italian wineries. Future research, for example throughout longitudinal case studies, might investigate whether proactive resilience leads to resilience and study the phenomenon in different sectors and countries.

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*Keywords: resilience, goals, women, wineries*

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## MERGERS AND ACQUISITIONS – A STUDY ON VALUE CREATION

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### ABSTRACT

Value creation is the primary objective of any company, together with the creation of wealth for its owners, which can be achieved through mergers and acquisitions. In this way, the theme is related to the identification of the particularities that lead to the creation of value as well as the indicators that provide value creation in the process of mergers and acquisitions. The research theme was defined as “Mergers and Acquisitions – A Study on value creation”.

The acquisition process (total or partial) of a company comprises the following aspects:

- 1) Determination of the transaction value, which corresponds, in the acquired company, to the acquisition cost;
- 2) Determination of the global fair value of the acquired company's identifiable assets, liabilities and contingent liabilities, whether the same terms or not of the financial statistics;
- 3) Accounting treatment as given to a possible difference, positive or negative (goodwill and badwill), less the previous two values.

Thus, the work has as its main question “How do Mergers and Acquisitions influence the value of companies? ”.

The main objective focuses on assessing whether mergers and acquisitions positively or negatively affect the value of companies. Therefore, the secondary objectives are to mention the particularities that provide the increase in the value of companies; analyze performance indicators as measures to increase companies' value; identify the determinants that provide value creation.

With regard to methodology, this is a quantitative research, more specifically a statistical study, consisting of a relevant sample of Portuguese companies in order to analyze the evolution of the value of companies before and after the economic operation, which the indicator / indicators that have a greater relevance in changing this value.

The contribution of this work translates into the identification of the variables that contribute to the creation of value through mergers and acquisitions, as well as clarifying the role of the selected performance indicators in the increase of companies' value.

*Keywords: Mergers; Acquisitions; Value creation; Performance; M&A.*

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# **AN OVERVIEW ABOUT THE KPI USED BY BUSINESS ORGANISATIONS TO MONITOR THE DIGITAL PROCESSES**

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## **ABSTRACT**

The phenomenon of digitalisation strongly affected business organisations that become more and more digitalised to survive in today's competitive market.

The purpose of this research is to understand the existing literature about KPIs that business organisations used to monitor the new processes introduced with advent of the digital technologies inside the company.

The study uses Web of Science as a primary search engine and covers the most cited articles over the period 1997-2019. The records are statistically analysed using an open source software package called R.

The findings show how the literature is very diverse when it comes to this topic, as Digitalisation is affecting the Benchmarking processes of a variety of firms, from many different sectors. Our data confirms how the annual literature production has been steadily increasing over the years, up until 2019. This goes to show how the field is still evolving (Ohiomah et al., 2019). Based on our survey, "Performance" appears to be the keyword with the highest citations.

## **1. INTRODUCTION**

### **1.1 The current situation**

In recent years, the use of new technologies has affected business organizations, with more and more analogic businesses becoming digitalised in order to survive in today's competitive market (Kumar, 2018). The digitalisation is a structural change for not only a single business unit but for entire organizations, as for them is the only way to remain competitive. Especially, key strategic functions such as marketing, accounting and human resources can now benefit from new tools and techniques which allow them to be more efficient although they have changed their operational model (Kumar, 2018).

However, despite the importance of digitalisation in modern day economy, the literature is still lacking when it comes to researches related to the application of technology for businesses (Ohiomah et al., 2019).

### **1.2 The Proposed Study**

This study aims to analyze the state-of-the-art of the scientific literature as for how digitization affects process management in organizations, and particularly the KPIs that organizations adopt to monitor processes that are being digitalized. In particular, the focus is on specific keywords found in the literature, how often they come up when analysing the citations and whether or not there is a correlation between the numerous elements connected with Digitalization. We explore the existing theories and case studies in an effort to find common themes and ideas.

Moreover, our intention is to find specific keywords with the highest amounts of citations through a bibliometric analysis, in an effort to map the existing theoretical framework which appears to be fragmented and still relatively new (Ohiomah et al., 2019). In addition, our research maps the articles found based on the industry sector related to them, showing which industry sector is the most affected by the Digitalisation process and which one isn't.

### **1.3 Research Methods**

As affirmed by (Fink, 2019), the systematic literature consists of reviewing an existing body of literature using a clear and reproducible methodology.

In this study we use the PRISMA guidelines to develop our reporting strategy. (Moher et al., 2010)

We selected paper published from 2002 to 2019 on Web of Science. The choice of Web of Science of our sole citation database depends on the overlaps among the journal lists of Web of Science and Scopus and some other major scientific databases. (Gavel and Iselid, 2008)

On Web of Science database, we used the following search terms in title and abstract:

(i) digital\*

OR

(ii) KPI\* OR benchmark\*

The use of above-mentioned search terms and Boolean Operators on Web of Science gave us 4032 results. We then refined our research by limiting the results obtained in four specific fields: business, business finance, management, operation management, economics. This filter yielded 122 records. Then we filtered the result once again and excluded proceedings from the research obtained 85 articles and we make sure that all the articles were written in English (Kraus et al., 2020).

The next step was to manually screen the papers and filter out those that were not involving the topic of digitalization, KPI and benchmarking in them. This was achieved by analysing each title and abstract through the reference management software Mendeley. Finally, we exported the archive in a file that was readable by Bibliometrix. We then used R and its Bibliometrix tool to analyse the dataset obtained and extract the results discussed later in this paper.

## 1.4 Structure

The paper first focuses on defining the terminology that is going to be used in the paper screening process. Then it shows the methodology adopted, focusing on the various steps that led us from the first batch of 4022 papers to the final selection of 69. We then show how the data were analyzed through the Bibliometrix tool.

## 2. RESULTS

### 2.1 Annual Scientific Production

In an effort to demonstrate how the field of Digital Innovation is new and rapidly growing, we analysed the annual scientific production throughout the years, starting from 2002 to 2019. The production of content related to KPIs and Benchmarking tools in the Digital Age has been growing exponentially since 2002. The average annual growth rate is 11.33%. There has been a recent spike in production levels starting from 2015, with an annual growth rate of 80% from 2015 to 2019.

### 2.2 The most common Keyword

The three most common Keywords found in studies associated with Digital KPIs and Benchmarking are "Performance", "Systems" and "Framework", with "Performance" being the most common one. "Model", "Growth", "Innovation" and "Consumer" are also commonly used keywords.

### 2.3 Co-occurrence network

The Keywords co-occurrence network analyses the structure of a scientific field in an attempt to find existing links between keywords in the literature (Zarei and Jabbarzadeh, 2019). From our analysis, there appears to be strong connection between the words "Management", "Adoption" and "Framework". The same thing can be said about the cluster made of the keywords "Performance", "Systems", "Benchmarking" and "Efficiency".

## 3. CONCLUSIONS

The digitalization process is affecting the way KPIs are measured in modern day businesses. The present study has concluded how, despite the field being relatively new and still in development, there has been a steady growth in the annual production rate over the past five years. The strict connections between the keywords "Framework", "Management", "Performance" and "Efficiency" suggests illustrates the increasing trends in the literature concerning the Digital Age.

*Keywords: digitalisation, KPI, benchmarking, digital transformation, management*

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## RELATIONSHIP BETWEEN UNIVERSITIES AND WINE COMPANIES: THE CASE OF TASCA D'ALMERITA

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### ABSTRACT

#### OBJECTIVES

In recent years, universities have focused their attention on improving and increasing their relationship with industry, with the ultimate goal of promoting regional and national economic development and innovation systems (Etzkowitz & Leydesdorff, 2000; Giuliani & Arza, 2009; Cesaroni and Piccaluga, 2016). Hence firms' ability to acquire, use and integrate external sources of knowledge has been recognized as one of the most relevant competitive factors, in particular for companies that adopt an Open Innovation approach (Chesbrough and Crowther, 2006; Spithoven, Clarysse and Knockaert, 2011).

However, this phenomenon of closer university-industry relationships has mainly affected high-tech companies, while low-tech companies often lack the needed resources and competences to take advantage of university knowledge and skills (Goedhuys, M., Janz, N. & Mohnen, P., 2013; Giuliani, E. & Arza, V., 2009). Despite the importance of low-tech companies, especially in certain countries such as Italy, prior literature has often neglected to address the phenomenon. Accordingly, this work aims to explore in depth the relationships that can be established between the academic world (universities) and low tech SMEs, when the latter have the need to internally implement innovative practices, given that this type of company often suffers of weaknesses in skills to pursue this type of strategy.

Specifically, the analysis will address the wine making industry. Indeed, wineries have expressed the need to maintain their competitive advantage, and to innovate, even though they are aware of the lack of knowledge in areas other than the mere production of wine. In fact, companies in the low-tech industries often lack effective absorption capacity (Cohen & Levinthal, 1990; Spithoven, Clarysse & Knockaert, 2011), which is necessary to exploit external knowledge in order to develop innovations (of various types) and finally converting innovation into financial performance (Dahlander & Gann, 2010; Rothaermel & Alexandre, 2009, Vrontis, D., Thrassou, A., & Rossi, M. 2011). Universities are one of these external sources of knowledge. Businesses can benefit from the scientific and technological knowledge offered by academic institutions and use them for their innovation purposes (Natalicchio et al., 2019).

## **METHODOLOGY**

To pursue the objective of this paper, the study performs a qualitative analysis based on the single case study method, which allows an in-depth exploration of the phenomenon (Yin, 2004), by utilizing a wider range of data sources. The case here selected is Tasca d'Almerita, a winery that operates in the Sicilian territory. This firm began its activity in 1830 and over the years has distinguished itself for the implementation of innovative practices throughout the production chain and not only in this area. Our choice fell on this Sicilian company because it was one of the first to see an opportunity for development in the university-business relationship. Precisely for this reason, in recent years, it has established long lasting relationships with Italian and European universities. The data collected derives from both primary data (semi-structured interviews) and secondary data (desk analysis, internal reports and documents, dossiers and other printed materials).

## **FINDINGS**

Results of the qualitative analysis (in-depth case study) show that even low-tech companies (an example of which is Tasca d'Almerita) are increasingly trying to strengthen interactions with universities, because they realize the internal limits that the wine production can have (routine of farmers, winemakers, etc.), for the internal implementation of innovative practices that can make the production and marketing of wine easier and more attractive. Furthermore, they are making efforts to overcome internal and external communication obstacles that characterize these types of cooperation: often the implementation of internal changes are contrasted by the psychological and attitudinal limits of internal employees and collaborators. In this specific case, internal farmers are expected to face a change in mentality, a very difficult action to implement, being farmers a little fond of traditional practices.

## **RESEARCH LIMIT**

The study carries within itself the limits common to any qualitative analysis and, not having the pretension to be exhaustive in the explanation of the phenomenon under examination, it lays the foundations for further future research.

## **PRACTICAL IMPLICATION**

The results of this study have practical implications that can be useful to managers operating in low-tech sectors. The opening up of the innovation processes of these kinds of firms, however, by

improving the relationships with external sources, can allow them to obtain information and knowledge that were previously very distant and eventually improve their innovative outcomes.

*Keywords: wine industry, low-tech industry, external knowledge, knowledge transfer, universities, open innovation, absorptive capacity*

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# DETERMINANTS OF SUCCESSFUL GOVERNMENT INVOLVEMENT IN THE RESTRUCTURING OF LARGE COMPANIES: A HYBRID APPROACH

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## ABSTRACT

## INTRODUCTION

The COVID-19 pandemic is triggering a wide-spread economic crisis: European member States, backed by the European Central Bank, are already stepping in to facilitate the restructuring process of both the corporate and financial sector. In such a time, governments enjoy a high degree of freedom in terms of resource reallocation. We believe a discussion concerning the best practices of government intervention could be of public interest.

An in-depth literature review on the topic shows four main kinds of government intervention in the restructuring of the economy. Based on the most frequent elements of the different, although mostly comparable, theoretical frameworks, the government's role can be classified along two axis: kind of activity (regulation/ intervention) and scope of action (market-wide/ firm-specific).

This work is particularly focused on the restructuring process of large non-financial strategic firms, i.e. instances of firm-specific interventions. We analyse several case studies from the past global financial crisis and integrate our observations with industry-level data. We adopt this hybrid approach to draw insights into which factors differentiate successful and unsuccessful government-driven attempts at restructuring large firms. The main selected cases are: the US automobile industry under the Troubled Asset Relief Program (TARP), the Ukrainian state-owned energy company Naftogaz; Dubai World, a real estate company related to the United Arab Emirates government; and AvtoVaz, a partially state-owned Russian car manufacturer.

## METHODOLOGY

We assess each case's policies' effectiveness by observing both the economic performance of the selected firms and that of their respective industries as a whole, and comparing it to the policies' cost in terms of GDP percentage. The firm-level data is retrieved from the Bureau Van Dijk Orbis database, whereas the policies-related information is mostly extracted from International Monetary Fund's reports. Then, we speculate on the determinants of a successful restructuring, based on the following

variables: ownership structure (privately/ state-owned), profitability prior to the crisis, and duration of the government's presence in the ownership structure.

## CONCLUSION

At the time of writing, research is still ongoing. However, government-driven restructuring seems to have proven effective, at least to some extent, only in the context of the Troubled Asset Relief Program. In other words, State intervention worked only on firms that were solvent prior to the crisis, with plenty of cash reserves, and with a clear exit-strategy in place.

Limitations of this study include the lack of transparency on some of the enacted policies, a skewedness of the sample towards non market-oriented economies and a difficulty in separating a policy's effects from the overall trend of the economy. The next steps in the research process will address these shortcomings by expanding the sample of observed cases with instances from European member states.

*Keywords: COVID-19, corporate debt restructuring, NPLs, corporate crisis, government intervention, policy analysis*

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## GREEK FIRMS' CAPITAL STRUCTURE AND THE CRISIS

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### ABSTRACT

### INTRODUCTION

The onset of Greek debt crisis can be traced to the U.S. sub-prime crisis in 2007 (Arghyrou and Tsoukalas, 2011). Greece is severely suffered in this crisis, having its rating in 2015 dropped to B- (S&P), Caa3 (Moody's), CCC (Fitch). Moreover, its GDP shrank about 25% over the period of 2010-2015, accompanied with nearly 25% unemployment (roughly 60% youth unemployment) and high ratios of debt to GDP, which were 177% for public and 142% for foreign debt. Also, the capital market was frozen and bank lending mitigated, facts that affected the capital structure of Greek firms (Chatzinas and Papadopoulos, 2018). This paper aims to investigate the firm-specific determinants of capital structure of Greek non-listed firms before and after the period of debt crisis. In addition, this paper intends to study whether the firm-specific determinates of capital structure and their effects on leverage will differ across those two sub-periods. The first motivation of this paper is the special macroeconomic environment of Greece during the period of crisis (Daskalakis et al., 2017; McNamara et al., 2017). Furthermore, studies published on the Greek business setting either investigate the behaviours of Small and Medium-sized Enterprises (SMEs) or select a different period of time, most of which do not focus on firm-specific factors (Noulas and Genimakis, 2011; Balios et al., 2016). Moreover, the current study extends the previous work by Chatzinas and Papadopoulos (2018) and Kyriazopoulos (2017) by including a largest sample (almost the majority) of non-listed, non-financial corporations in Greece and not focusing only on listed firms as the previously mentioned studies. Moreover, we include a large sample period even before the US financial crisis of 2007-2008, thus we are able to extract more efficient inferences regarding the impact of firm-specific determinants on the capital structure.

### METHODOLOGY

The sample of this study includes all private, non-listed corporations registered in the Greek chamber of trade during the period 2003-2016. All data were extracted from ICAP database. We collected data from firms' annual financial statements which closed their fiscal year on December and have full financial data for at least four consecutive years. Meanwhile, due to the different structures of balance sheet between firms in financial industries and nonfinancial industries, firms in financial sectors are

excluded from the sample data (Chen, 2004). This procedure resulted in a usable unbalanced sample of 8529 firms summing up to 30041 firm-year observations.

Complying with most of the previous studies on capital structure, panel data will be estimated through the Ordinary Least Squares (OLS) and multivariate linear regression model to investigate the firm-specific determinates' impact on firm's capital structure decision. The basic regression model can be specified as follows:

$$TLEV_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 GROW_{it} + \beta_3 PROF_{it} + \beta_4 EVOL_{it} + \beta_5 TANG_{it} + \beta_6 NDTs_{it} + \beta_7 TAX_{it} + e_{it}$$

Where  $i$  denotes the firm dimension and  $t$  denotes the time dimension. The dependent variable TLEV (total liabilities to total assets), represents the leverage level of the  $i^{\text{th}}$  firm in  $t^{\text{th}}$  year,  $\beta_k$  is the regression coefficient for the  $k^{\text{th}}$  independent variable, SIZE, GROWTH, PROF, EVOL, TANG, NDTs and TAX, represent the firm size, grow opportunities, profitability, earnings volatility, asset tangibility, non-debt tax shields and income taxes of the firm  $i$  during period  $t$  respectively,  $\varepsilon_{i,t}$  denotes the error term for the  $i^{\text{th}}$  firm in  $t^{\text{th}}$  year. Model (1) will be estimated by random effect since the Breusch and Pagan Lagrangian multiplier test for random effects produced a highly significant chi-square value suggesting that random effects is the most efficient estimation method.

## RESULTS AND DISCUSSION

Results are presented on Table 1. This study tests the efficiency of trade-off theory and pecking order theory, finding that size and asset tangibility are directly and positively related to total leverage, while growth opportunities, profitability, earnings volatility, non-debt tax shields and tax payments are negatively and significantly impacting total leverage. Finally, only earnings volatility seem to have a differential impact on both total and long-term leverage between the pre and post-crisis periods. This paper enriches the existing studies related to capital structure and provides new empirical evidences for the capital structure theories within a country that experienced a severe reduction on its economic activity for a significant time period. Meanwhile, this paper helps to fill the gap in existing literatures, since few previous researches have studies the capital structure determinates of Greek listed firms during a large time period before and after the crisis period (with Daskalakis et al., 2017 being the only exception). This study has important implications for regulators and investors. Regulators could use the findings of the current study in order to adjust state policies (tax policy, financing policy etc.) for assisting firms to access financing in difficult times, while investors should consider the differential impact of capital structure determinants during troubled times when receiving their financing and investment decisions.

Table 1: Panel random effects regression results on the determinants of total leverage before and after the crisis (robust standard errors).

|          | Coef.      | z-test | p-value |  | Coef.      | z-test | p-value |  | Coef.      | z-test | p-value |
|----------|------------|--------|---------|--|------------|--------|---------|--|------------|--------|---------|
| Constant | 0.125***   | 4.30   | 0.001   |  | 0.051**    | 1.97   | 0.049   |  | 0.326***   | 11.60  | 0.001   |
| SIZE     | 0.017***   | 9.16   | 0.001   |  | 0.025***   | 15.18  | 0.001   |  | 0.002      | 1.47   | 0.142   |
| GROWTH   | -0.009***  | -3.71  | 0.001   |  | -0.006**   | -2.12  | 0.034   |  | -0.013***  | -5.82  | 0.001   |
| PROF     | -0.237***  | -7.15  | 0.001   |  | -0.444***  | -15.41 | 0.001   |  | -0.114***  | -5.33  | 0.001   |
| EVOL     | -0.001     | -0.28  | 0.779   |  | -0.009***  | -6.31  | 0.001   |  | 0.009***   | 10.90  | 0.001   |
| TANG     | 0.060***   | 6.98   | 0.001   |  | 0.019***   | 2.68   | 0.008   |  | 0.082***   | 10.80  | 0.001   |
| NDTS     | -0.135***  | -15.49 | 0.001   |  | -0.164***  | -23.68 | 0.001   |  | -0.130***  | -12.84 | 0.001   |
| TAX      | -1.283***  | -8.73  | 0.001   |  | -0.923***  | -7.91  | 0.001   |  | -1.351***  | -12.84 | 0.001   |
| Wald-x2  | 1205.42*** |        |         |  | 2630.48*** |        |         |  | 1809.74*** |        |         |
| R2       | 0.117      |        |         |  | 0.159      |        |         |  | 0.091      |        |         |
| Observ.  | 30041      |        |         |  | 14656      |        |         |  | 15385      |        |         |

Note: \*\*\* indicate statistical significance at the 1% significance level.

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## CORPORATE SOCIAL PERFORMANCE AND INCOME SMOOTHING

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### ABSTRACT

### INTRODUCTION

In prior literature, accounting information quality is measured through various proxies the most popular being that of earnings management and specifically income smoothing (Niu, 2006). Income smoothing commonly refers to managerial activities aiming to influence positively their bottom-line earnings (net profits) so as to avoid reporting small losses and report small positive income (Dimitropoulos, 2011). Under this framework, several research studies have considered the impact of CSR related activities and performance on the quality of financial information published by firms. One strand of literature (agency theory perspective) argues that CSR is negatively associated with IS because CSR mitigates the agency problems within firms by reducing the managerial incentives to exercise accounting discretion over financial reports. High CSR performing firms are more likely to restrain income smoothing behaviour (Choi et al., 2018). The other strand of the literature, documents that CSR and income smoothing could be positively associated because CSR could be used as a vehicle for window-dressing the true economic condition of the firms (political cost hypothesis) (Kim et al., 2012).

Empirical evidence so far have yield conflicting evidence on the impact of CSR on earnings manipulation. Prior et al. (2008) and Buertey et al. (2019) provide evidence of a positive association between CSR and earnings manipulation supporting the political cost hypothesis. On the contrary, Choi et al., (2018), Yoon et al. (2019), Kim et al. (2019) and Palacios-Manzano et al. (2019) all point to a negative association between CSR and earnings management. The scope of this paper is to shed further light on the impact of CSR performance and its components on income smoothing behaviour by incorporating a multi-country research setting (24 EU countries) and incorporating various sub-categories of social performance, thus providing more thorough evidence in the existing literature regarding the impact of CSR on the quality of accounting numbers. This is the first study in European level which considers the multi-facet characteristics of CER on the quality of accounting earnings and offers useful policy implications for regulators and investors.

### METHODOLOGY

The current chapter utilizes a sample of corporations (both listed and unlisted) from 24 EU-member countries over the period 2003 – 2018. All financial, governance and environmental responsibility data have been extracted from Datastream database. The sample collection procedure started by including all corporations that have been covered by the environmental, social and governance (ESG) scores provided by Datastream during the sample period. We ended up with a final sample of 121154 firm-year observations. In order to examine the main research hypothesis we measure the level of earnings manipulation by income smoothing, following previous studies by Leuz et al. (2003) and Barth et al. (2008). Income smoothing is estimated by the Spearman correlation between accruals and cash flows between firms of high, medium and low CSR performance. CSR performance is the firm annual average of five social responsibility scores referring to CSR strategy score, work force score, human rights score, community score and product responsibility score. All social variables scores range between zero (0) and 100 so the higher the score the more socially responsible and efficient is the firm. High CSR firms are those that their CSR score is above the 3rd quartile, low CSR firms are those that their CSR score is below the 1st quartile and firms with CSR scores between the 1st and 3rd quartiles are denoted as medium CSR performing firms. Barth et al. (2008) interpret a more negative correlation between accruals and cash flows as earning smoothing due to the fact that managers respond to poor cash flow outcomes by increasing accruals (through the increase of net income since accruals are the difference between net income and operating cash flows). If this is true we predict that firms with higher CER performance will present a less negative correlation between accruals and cash flows compared with medium and low CER firms, thus will be associated with lower income smoothing.

## EMPIRICAL RESULTS

Results are presented on Table 1. As we can see, the Spearman rank correlation coefficient increases in magnitude moving from the P1 portfolio of the high CSR performing firms (-0.649) to the P3 group of low CSR performing firms (-0.891). This result provides support to H1 indicating the firms engaging in CSR activities are associated with higher accounting quality through less income smoothing.

*Table 1: Income smoothing based on CSR ranked portfolios.*

| <b>Spearman correlation</b> | <b>P1 – High CER</b> | <b>P2 – Medium CER</b> | <b>P3 – Low CER</b> |
|-----------------------------|----------------------|------------------------|---------------------|
| <b>Coefficient</b>          | -0.649***            | -0.844***              | -0.891***           |
| <b>p-value</b>              | 0.001                | 0.001                  | 0.001               |

**Note:** \*\*\* indicate statistical significance at the 1% significance level.

## CONCLUSIONS

The scope of this chapter was to provide evidence on the impact of CSR performance on the income smoothing behaviour by utilizing a multi-country research setting and incorporating various sub-categories of social responsibility performance and income smoothing measures evidenced in the accounting literature. The empirical results verified evidence and arguments in the literature that CSR performance improves the quality of published accounting information by mitigating income smoothing. The negative association between CSR performance and earnings management could be used by investors in assessing the risk of firms and the quality and reliability of financial information.

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# NEW SERVICE DEVELOPMENT FOR AND FROM EMERGING MARKETS: A SYSTEMATIC REVIEW AND FUTURE DIRECTIONS

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## ABSTRACT

## INTRODUCTION

In the last decade emerging markets (EMs) have become an established part of the world's economic landscape (Dubiel and Ernst, 2013; McKinsey, 2018). With buoyant local consumption they are increasingly attractive markets and a crucible for innovation exported overseas (Zedtwitz *et al.*, 2015). Yet, due to infrastructure issues, regulatory frameworks, and customer solvency, entry into EMs remains challenging for firms from developed markets (DMs) (Nagy *et al.*, 2020; Vassallo *et al.*, 2019). Similarly, firms from EMs experience difficulties in targeting DMs. New product development (NPD), a core driver of market success, is one such aspect where both perspectives are especially visible. Thus, firms report an array of failed attempts to meet customer needs in both EMs and DMs (Dubiel and Ernst, 2013; Zedtwitz *et al.*, 2015). Therefore, insights on how to develop successful new offerings for EMs or by EMs firms while avoiding pitfalls of simply extrapolating from DMs to EMs are in high demand. We take stock on existing research on this timely matter and address the knowledge gap lying at the intersection of two major marketing domains, i.e., international marketing and NPD.

More specifically, existing research on NPD-related questions focusses mainly on manufacturing firms and tangible products (Agarwal *et al.* 2017; Dubiel and Ernst, 2013; Zedtwitz *et al.*, 2015). This is a major shortcoming on two counts: 1) services are fundamentally different from tangible products (Papastathopoulou and Hultink, 2012) and thus their development processes differ substantially (Storey *et al.*, 2015); 2) services contribute greatly to EM economies, by accounting for 60 percent of GDP and more than half the total jobs (McKinsey, 2018). Services in EMs are varied, ranging from micro-loans at the bottom-of-the-pyramid (Vassallo *et al.*, 2019) to shopping mall (Diallo *et al.*, 2018). A more granular understanding of development and launch of new services in the context of EMs is decisive for advancing theoretical and practical knowledge in marketing. To the best of our knowledge, this is the first comprehensive overview of research into new service development (NSD) in the context of EMs. Our review contributes to a systematic and critical examination of extant literatures further highlighting possible novel and impactful research avenues for future exploration.

## METHODOLOGY

We adopt a systematic review methodology (Christofi *et al.*, 2017). The central questions we ask are “What is the extant research in marketing and NPD on NSD and how is this field likely to evolve?” We focused our search efforts on EBSCOhost Business Source Complete and Science Direct spanning 2010-2019. The initial search was conducted using the search strings: “service” and “emerging market” in titles, keywords, and abstracts to allow for a broad coverage minimising exclusion of potentially relevant studies. We have focused on academic journals rated ABS 3 and above as well as some highly regarded managerial outlets (e.g., Harvard Business Review), to account for the applied nature of the subject. We selected higher ranked journal articles primarily to uncover up-to-date findings from reliable sources but also return a manageable list of references (Paul and Criado, 2020). Our search has yielded 22 manuscripts so far.

## THEMATIC ANALYSIS

Our initial thematic analysis identifies three main research themes (see Table 1 for examples).

Table 1: Findings of exemplary reviewed papers

| Authors, Year, Journal                                    | Industry                                     | Method  | Location  | Service direction             | NSD success factor | Profit Y/N                                    | Market segment | Major research focus         | Major research findings  |   |
|---|--|---|---|-------------------------------|--------------------|---|----------------|------------------------------|--|---|
| How to develop new services                               |  |   |   |                               |                    |   |                |                              |  |   |
| 1   | Vassallo <i>et al.</i> , 2019, <i>JPIIM</i>  | Microfinance  | Secondary sources/questionnaire                                       | India                         | EM<->EM            | Organisational design                         | Y/N            | BOP                          | Extent to which, alternative hybrid forms (not-for-profit, quasi-profit, and for-profit hybrids) drive social innovation. Relative propensity of these hybrid forms to drive social innovation under varying BOP market conditions | Quasi-profit hybrids have a propensity to become more prevalent and achieve greater usage in BOP markets overall. Not-for-profit hybrids are more likely to become more prevalent and achieve greater usage in markets with lower development levels, whereas for-profit hybrids are more likely to become more prevalent and achieve greater usage in markets with lower social diversity when compared with other hybrid forms<br>Consumers with an interdependent self-construal tend to have greater suspicion of and negative responses toward high service attentiveness. The effect of interdependent self-construal fostering greater suspicion is attributed to a sharper in-group (vs. out-group) distinction, which is mitigated when the service employee is perceived to be an in-group member |
| 2   | Liu <i>et al.</i> , 2019, <i>JIM</i>         | Hairdressing, telecommunications, and computer repair | Qualitative study, a field experiment, and two laboratory experiments | among others China            | EM<->EM            | Front-line staff involvement                  | Y              | Diverse                      | Can service attentiveness increase consumer satisfaction in different markets?   |   |
| New service characteristics/design                        |  |   |   |                               |                    |   |                |                              |  |   |
| 3   | Diallo <i>et al.</i> , 2018, <i>JIM</i>      | Shopping mall service                                 | Questionnaire   | Morocco, Senegal, and Tunisia | EM<->EM            | Quality and loyalty                           | Y              | Diverse                      | How cultural context affects the relationships between service quality and customer loyalty?   | Mail service quality and its specific dimensions affect customer loyalty through the positive mediation of customer satisfaction and mail perceived value. Differences between the surveyed countries apply.  |
| 4   | Govindarajan and Ramamurti, 2013, <i>HBR</i> | Health care services                                  | Cases, interviews   | India                         | EM<->EM->(DM)      | Organisational design, service innovativeness | Y/N            | Rather lower market segments | Understand how some Indian hospitals are able to provide world-class health care at ultralow cost  | Three powerful organisational advantages: a hub-and-spoke configuration of assets, an innovative way of determining who should do what, and a focus on cost-effectiveness rather than just cost cutting   |
| Internationalisation of service firms to emerging markets |  |   |   |                               |                    |   |                |                              |  |   |
| 5   | Ghauri <i>et al.</i> , 2014, <i>IMR</i>      | Finance, insurance, telecommunications                | Multiple case studies   | India                         | DM->EM             | External relations                            | Y/N            | BOP                          | How employing corporate social entrepreneurship and developing a network of relationships with NGOs can support and contribute towards the internationalisation of service firms into the BOP markets in EMs                       | The pursuit of corporate social entrepreneurship has paved the way for the MNCs to establish relationships with NGOs. While the MNCs have mainly had the technical knowledge and financial resources required, collaboration with NGOs have allowed them to learn about the BOP's specific needs and benefit from the NGOs' knowledge, HR and good relationships in this market   |

Note: *IMR* = *HBR* = Harvard Business Review; *International Marketing Review*; *JIM* = *Journal of International Marketing*; *JPIIM* = *Journal of Product Innovation Management*;

These are: 1) NSD success factors (e.g., staff involvement, organisational design), 2) New service characteristics (e.g. quality, innovativeness) and 3) Service internationalisation into EMs. Further, we observe some noticeable differences between countries (most studies in India and West Africa),

industries (interest in financial services), market segments (bottom-of-the-pyramid vs. middle class) and organisational forms (for profit vs. mixed vs. charitable causes).

## RESEARCH GAPS AND AGENDA FOR FUTURE RESEARCH

We propose three areas (theory, methods, and context) for future research. First, studies from the NPD domain tend to be less explicit about the theories applied, and a broader variety of theories would be encouraged to explain NSD practices in the EM context, thus enriching the research stream. Second, case studies seem to be the dominant method used. While the many difficulties related to large-scale data collection in EMs are acknowledged, future studies are very much encouraged to explore different methods (e.g., natural experiments, randomised control trials) to provide better insights into causality as well as understand relationships between phenomena located at different analysis levels (e.g., hierarchical linear modelling). Finally, concerning context a broader exploration of national settings and industries would improve our understanding of NSD in the context of EMs. Particularly, studies on the middle class and in B2B sectors are encouraged.

*Keywords: bottom-of-the-pyramid, emerging markets, international marketing, new service development, market segmentation, service launch, subsistence marketplaces, success factors*

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## THE MEANING OF THE WORKPLACE AND THE PRACTICE OF REMOTE WORK

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### ABSTRACT

The move from office-based to remote work can have different and even opposite effects on people's work practices and work outcomes, on their relationships with peers and on their work-life balance (Bartel *et al.*, 2012). These opposite effects have been attributed to structural conditions such as people's tasks, the properties of technology and the type of remote work arrangement (e.g. Drouin and Bourgault, 2013). However, a growing set of studies attributes these differences and contradictions to how people appropriate these structures (e.g. Fonner and Stache, 2012). Our research looks at an understudied process of appropriation in remote work: the process whereby people appropriate time-space to socially construct their workplace. Specifically, we addressed the following research question: How do people's answer to the question 'where do I work' shapes their transition from office work to remote work?

To answer to this research question we conducted a case study (Yin, 2017) in the Italian subsidiary of a multi-national company selling pneumatic solutions. To cut costs, the company introduced a remote work program for all the salesforce and removed all local offices. Only the headquarter in Milan remained as a physical space. Our main source of primary data was a set of 21 semi-structured in-depth interviews to salesmen in their transitioning process from office-based to home-based mobile working and to their supervisor. We interviewed people at two separate times: 1) immediately after salespeople transitioned from working at a desk in their local branch to home-based mobile teleworking; 2) and six months after this transition.

In contrast to most research on the social construction of workplace, the study took an ethic, rather than an emic approach to the spaces where people work (cfr. Halford and Leonardi, 2006). This means that the study allowed to account for different interpretations of work space, since the data collection strategy did not specify in advance or narrow the spaces that could become workplaces.

This approach allowed a plurality of meanings attached by salespeople to their workplace to emerge through the analysis. These included: the *industrial sector*, e.g. "I've always sold pneumatics, mainly pneumatics solutions (..); a *prestigious company* "Our company has recently been acquired by an important financial company (...). We don't know if they have a real intention to invest in pneumatics" (salesman 1); the *geographical area of competence*, e.g. "I'm like a micro-entrepreneur on a slice of

geographical area" (salesman 3); a (*unknown*) brand, e.g. "When I knock at the door of the client and say that I'm from Alfa (a pseudonym of the old company where salesmen worked), everyone knows me. Today I say I'm from PneumOne and the client answers "what?" (salesman 4); *everywhere*, e.g. "Our work can be done anywhere in the world. When you have the adequate tools, there is no need to be in a specific place" (salesmen 5); a *physical organizational space*, e.g. "Home is home, office is office" (salesman 6); the *customer site*, e.g. "Being a salesman, I've always spent time at the customers' sites" (salesman 7).

Introducing the social construction of the workplace makes two sequential contributions to research. First, it contributes to research on remote work by establishing a link between research on the structural conditions shaping remote work, such as the remote work arrangement and task, with the meaning that people attribute to their workplace and which will inform how they experience and enact the transition to remote work. Second, it shows how to address a prevalent challenge in research on IT and organizations: that is integrating the role of meanings with the role of practices in the explanation of the link between people's use of IT and the effects of IT in organizations. People's answer to the question 'where do I work' – which is their own interpretation of their workplace – can help improve the theory of how remote work changes people's practices and their consequences and show how meaning can be integrated with practice in explanations of the effect of IT in organizations and society.

*Keywords: remote work, social construction, workplace, meanings, work practices, IT-led organizational change, case study*

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## DILEMMAS OF CONTROL IN REMOTE WORK

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### ABSTRACT

Remote work arrangements (RWAs), such as telework, mobile work and virtual teams, lead to major changes in the control of work (Bélanger *et al.*, 2013). However, existing studies reveal contradictory effects of RWAs on control. Some argue that RWAs increase control while others argue that RWAs decrease control over employees (e.g. Kurland and Cooper, 2002). The question is not whether there is more or less control in computer-mediated RWAs. Instead the question is how that control is produced, reproduced and enacted in practice as people cope with, and take advantage of opposing effects produced by RWAs on control. We first review organizational literature on control (see Long and Cardinal., 2020, for a recent review) to explore whether and how each form of control (e.g. direct supervision, standardization, mutual adjustment) are exercised in RWAs. Then, we analytically review empirical research on RWAs and control to address the described tensions. The authors show that control in RWAs is specified by the relationship between the tension between *directive* and *delegative* control on one side, and tension between *connective* and *protective* participation, on the other side.

Research on RWAs has discussed the role of both directive and delegative leadership practices in the control of teleworkers and virtual team members. In directive leadership practices, managers take upon themselves to enforce control over employees (Dambrin, 2004). Delegative leadership practices allocate part of the burden of control to employees themselves (Brocklehurst, 2001). There is a tension between these practices in RWAs because directive control practices need delegative control practices to work and vice-versa. However, delegative control practices can hinder directive control practices and vice-versa. Our analytical literature review shows that rather than choosing one or the other, managers can incorporate both sets of practices and attempt to address the challenges of doing so as they surface. The tension between these two types of leadership and their effect on control depends on the practices that managers use to navigate through these tensions.

Research on RWAs has shown how employees can enact connective or protective practices towards their organization, in responses to managers attempts at directive or delegative control. Connective practices make employees' work visible to the organization so as to increase their sense of belonging and to allow them to benefit from their relationship with their managers. Protective practices make employees' work invisible so as to increase their sense of independence from the organization and to

allow them to avoid direct supervision (Barsness *et al.*, 2005). The tension between connective and protective practices comes from the increased control that employees must pay to benefit from visibility. The outcome of the tension between visibility and invisibility is specified by employees' adaptive choices to address these conditions. In sum, our analytical review of literature reveals that level of control in RWA depends on the tension between *aggregation* and *disaggregation* which is enacted by the relationship between (a) managers' leadership practice (ie. their attempts at addressing the tension between directive and delegative leadership) and employees' distancing practices (ie. their attempts at addressing the tension between connective and protective participation in RWAs).

*Keywords: Control, new work arrangements, remote work, telework, virtual teams, supervision, leadership, literature review*

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# EMPLOYEES' INTENTIONS TO IMPLEMENT GREEN PRACTICES IN HOTELS: THE INTERACTION OF GREEN ORGANIZATIONAL CLIMATE WITH ENVIRONMENTAL ATTITUDES AND BEHAVIOURS

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## ABSTRACT

Over the 21st century climate change, global warming, air pollution and resource shortages have pushed hospitality organizations to seriously address environmental sustainability in the conduct of their businesses and to adopt environmental management systems, eco-innovations and/or new technologies e.g. for lighting systems, water heating or air conditioning (e.g. Gössling *et al.*, 2010).

Previous studies (e.g. Chan and Hawkins, 2010; Chan *et al.*, 2014; Chan and Hsu, 2016) have pointed out that the environmental management programs imply new policies and procedures regulating employees' behaviour at work. These changes can be felt by employees as a threat, fear or even distrust in their managers' true intentions, thus leading them to resist to changing work practices and routines. Notwithstanding the relevance of the issue, studies investigating the relationship between environmental programs and employees' intentions to implement green practices in the hospitality industry is still underdeveloped and focused on the customers' and/or managers' perspectives (Chan and Hsu, 2016).

This study aims at contributing to research on environmental sustainability in the hotel industry by investigating the influence of *organizational green climate* (OGC) on the environmental attitudes and behaviour of hotels' employees. OGC refers to the employees' shared perceptions of the organizational events, policies, practices and procedures developed to sustain the "greening" of the organization (Chou, 2014). Drawing on previous research (e.g. Paillé and Raineri, 2015; Zientara and Zamojska, 2018) we assume that the organizational green climate: 1) is positively related to ecological behaviour (H1); 2) moderates the relationships between employees' environmental knowledge, environmental awareness and environmental concern and their ecological behaviour (i.e. the influence is stronger under a stronger climate) (H2, H3 and H4).

In order to test our hypothesis, we developed an ad hoc questionnaire based on 5-items scales used in previous studies (Chan *et al.*, 2004; Norton *et al.*, 2014). Respondents were asked to report their perceptions about the importance of attributes by rating each item on a 5-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Managers of hotels located in different touristic areas of Naples (Italy) were approached. Overall, 15 hotels decided to collaborate in the project. At the end of

the collection process, 350 usable responses from their employees were collected. Structural equation modelling (SEM) was used to test the research hypotheses.

This paper contributes theoretically by enriching existing research on environmental sustainability in organizations by shedding light on how a source of external social norms for organizational members (i.e. perceived green organizational climate) interact with internal individual beliefs and values (e.g. environmental knowledge) in shaping their behaviours and intentions. At practice level, it provides some strategic guidelines to hotel managers to enhance employee intentions to support the implementation of environmental programs by leveraging both individual-related and organizational-related factors.

*Keywords: ecological behaviour, environmental knowledge environmental awareness, environmental concern, green organizational climate, employees, hotels*

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# STRATEGIES FOR A MORE SUSTAINABLE HOME FOOD DELIVERY SYSTEM: THE CASE STUDY OF DELIVEROO

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## ABSTRACT

## INTRODUCTION

Several companies (restaurants, fast-food, super and minimarkets, etc.) today offer their customers the opportunity to buy food products online and to deliver them at home through food delivery distribution systems (Pan et al., 2017; Agatz et al., 2008). The food delivery sector is, in fact, assuming increasing importance in the distribution system of food products and food meals as it is becoming an ordinary component of consumption habits (Fooddelivery.report, 2020). Some data confirm the growing trend of this sector worldwide with a revenue that stands in 2020 at US\$136,431m, of which US\$70,741m attributable to the Platform-to-Consumer Delivery segment; a value that should reach US\$182,327 in 2024 (Statista, 2020). This growing demand for food delivery is driven by changes in consumption habits due to less time for food preparation and family meals (Kilcast and Angus, Eds. 2007) and consequently greater consumer attention towards the purchase of ready-made food using food delivery. The growth of the sector has inevitably affected the demand for freight transport, especially in urban areas, leading to an intensification of flows, deliveries and returns, with negative inevitable consequences on air quality (Ehrler et al., 2020). In terms of pollution, for example, the urban transport of goods produces about 27% of the total CO<sub>2</sub> emissions in the EU countries (EU, 2020). Therefore, with the increase of the food delivery demand, if on the one hand there is a reduction in the number of trips to shops and car trips of consumers, on the other hand, there is an intensification of travel drivers with significant implications on the structure of traffic and pollution in urban areas (Bjørngen et al., 2019). In line with this, it becomes essential to adopt more sustainable transport systems for food delivery in order to reduce the carbon footprint (Wygonikand and Goodchild, 2012). From this point of view, over the last few years, several projects, among which the EnerNETMob, an InterregMed project, they were financed to identify best solutions in order to guarantee of greater transport sustainability through the use of electric vehicles for urban transport. The introduction of electric vehicles for food delivery, such as e-bikes, e-scooters, e-cars, could undoubtedly contribute to reducing the environmental impact of the distribution of food purchased online. Despite the greater attention toward sustainable transport systems, studies analyzing the economic, environmental and social impacts of the adoption of electric vehicles for foods distribution

are still scarce. A recent study carried out in the German market on the potential extent of electric vehicles for the short-range distribution of food products underlines the validity of this more sustainable alternative but at the same time detects additional costs for companies that consumers are unwilling to support (Ehrler et al., 2020). L'originalità di questo studio è di esplorare i principali fattori abilitanti dell'implementazione di sistemi di distribuzione sostenibili, attraverso l'uso di veicoli elettrici, nel settore della consegna di alimenti. I nostri risultati contribuiscono ad arricchire la letteratura in questo campo di ricerca e in particolare le strategie di gestione adottate dalle aziende di consegna di alimenti al fine di incoraggiare sistemi di consegna più sostenibili. Dal punto di vista gestionale, i risultati consentono informazioni utili per incoraggiare la diffusione di questi veicoli, contribuendo nel contempo a ridurre le emissioni nelle aree urbane.

## **OBJECTIVE**

The aim of this work is to investigate the main enabling factors facilitating the diffusion of the e-mobility in the food delivery sector through the analysis of the Deliveroo case study. Deliveroo s.r.l. has been chosen for two main reasons. First, the growing importance of the company in the food delivery market, with an annual turnover increase of +120 million euros in 2017, becoming one of the major national players for food delivery. Second, the company recently adopted a strategy to support the diffusion of electric mobility for home delivery through the subscription of specific agreements.

## **METHODOLOGY**

In order to explore and describe the main enabling factors facilitating the diffusion of the e-mobility in the food delivery sector, a conceptual framework was developed based on three theoretical lenses as the absorptive capacity model (ACAP) (Newey and Zahra, 2009), the dominant logic theory (Bettis et al., 1978), and the theory of planned behavior (Ajzen, 1985, 1987). A case study approach has been used based on interviews and informal speeches with three business managers of functions, as a primary source, and archival data collection, as secondary information. The various data sources were triangulated.

## **EXPECTED RESULTS**

Today more than in the past, sustainable mobility has become a priority to respond to the environmental pressures of the various economic sectors, among which food delivery is one. The case study analysis aims to explore the strategy adopted by one of the most important food delivery companies on the international scene. Results show that the decision to adopt a more sustainable

distribution model, through the use of electric vehicles, is guided by the environmental pro-active behavior of the heads of the business managers, by the dominant logic of the top management and by the ability to acquire and capitalize market information.

*Keywords: electric mobility, online grocery shopping, sustainable behavior, emissions, food meals, supply chain, urban transport*

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## MEASURING THE CONSUMERS' LEVEL OF SATISFACTION FOR ONLINE FOOD DURING THE COVID-19 PANDEMIC

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### ABSTRACT

### BACKGROUND

Lately, the spread of COVID-19 pandemic has led to a further increase in the number of customers who buy food products online to comply with the rules aimed at limiting the spread of the virus, and this surge will probably have a positive effect on m-commerce in the long term. Despite the growing diffusion of online food shopping, there are currently few empirical studies aimed at observing and understanding the level of satisfaction of consumers using modern m-commerce technologies. In addition, little research is consecrated to fill the scientific gap related to the analysis of Italian market, which have recorded an increasing share of consumers interested in buying food online above all during this dramatic pandemic period. Extant literature on online shopping of food products have mainly focused on identifying the main drivers affecting the acceptance and intention of online purchase or the continuance intention to buy online (Driediger and Bhatiasevi, 2019), on which characteristics of the product or seller affect this intention (Zheng et al., 2019; Daniel Shehan et al., 2019) and on what product information can determine a higher frequency of online purchases (Benn et al., 2015). Another interesting filed of research examined the behavior of online food buyers, in some cases by comparing online purchases with offline shopping (Van Droogenbroeck and Van Hove, 2020; Rogus et al., 2019) and the factors affecting the transition from offline to online purchase (Singh and Rosenghin, 2020).

### PURPOSE

Given this scientific framework, the aim of this work is to investigate the level of satisfaction of consumer in buying food by means of online grocery shopping channels during this grave COVID-19 pandemic, starting from the description of the main factors that have characterized the online spending behavior. The analysis was carried out by collecting data deriving from an online questionnaire administrated to an Italian 'snowball' sample through social networks and emails, in the March-May 2020 time range. The questionnaire was first tested by experts in online purchasing

channels and by scientific representatives. 249 were the final respondents that completed the survey. About 25% did not conclude the questionnaire because did not meet the criteria of having purchased at least once on line. Finally, the purpose was to elaborate an index by considering the evaluation expressed by the respondents on the main aspects characterizing the online spending behavior.

## METHODOLOGICAL APPROACH

The methodological idea was based on constructing a synthetic measure that, taking into account the respondents' assessments of specific aspects of their shopping experience, is able to express the degree of user satisfaction. From the methodological point of view, the synthesis was obtained using a non-aggregatory approach. The adoption of this methodology allows to obtain a synthesis of basic indicators without any operation on the data (normalization and aggregation) and allowing to respect their ordinal nature. There is a large literature on the treatment and synthesis of multidimensional systems of ordinal data using non-aggregative methods, allowing the construction of synthetic measures without the aggregation of the scores of basic indicators. Within this approach, poset has become a reference over the years, as demonstrated by many works in different fields of research (Carlsen and Bruggemann 2017, Arcagni et al. 2019). However, poset can also be suitable for quantitative data (see: Fattore 2018, Alaimo 2020, Alaimo et al. 2020a, Alaimo et al. 2020b), allowing overcoming of some limitations of the aggregative methods. A poset  $P=(X, \prec)$  is a set  $X$  equipped with a partial order relation  $\prec$ , i.e. a binary relation satisfying three properties (Neggers, 1998):

reflexivity  $x \prec x \quad \forall x \in X$

antisimmetry  $\text{if } x \prec y \text{ and } y \prec x \text{ then } x = y, x, y \in X$

transitivity.  $\text{if } x \prec y \text{ and } y \prec z \text{ then } x \prec z, x, y, z \in X$

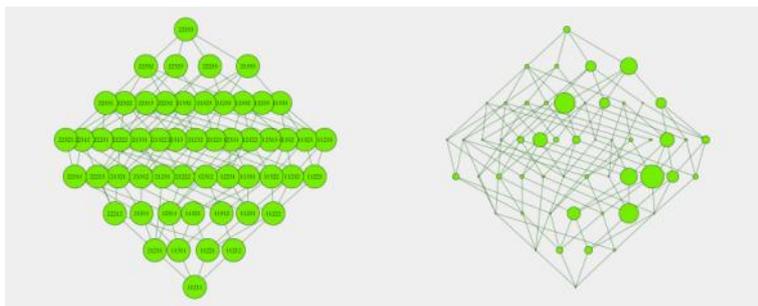
The incidence matrix defines the structure of comparabilities; it is a matrix  $Z_p = (z_{ij}) \in Z^{k \times k}$

where  $|X| = k$  is the cardinality of  $X$  and  $z_{ij}$  is equal to 1 if  $x_i \prec x_j$ , otherwise is 0, with  $x_i, x_j \in X$ . It is necessary to define the cover relation to provide a graphical representation of comparabilities. Given two elements,  $x_i, x_j \in X$ , we can affirm that the element  $x_j$  covers the element  $x_i$  ( $x_i \prec x_j$ ) if  $x_j$  dominates  $x_i$  ( $x_i \prec x_j$ ) and there is no other element  $x_h \in X$  that jointly dominates  $x_i$  and is dominated by  $x_j$  ( $x_i \prec x_h \prec x_j$ ). The Hasse diagram is the graphical representation of the directed acyclic graph representing the cover relation  $\prec$ . In this graph, the orientation from top to bottom substitutes the arrows. By transitivity, two elements are comparable if a path connects them in the Hasse diagram. Posets are used to define the structure of comparabilities underling multi-indicators systems. Once the structure is defined, we can analyze it by using different mathematical tools (Fattore, 2017).

## EXPECTED RESULTS

The index has been constructed considering the evaluation expressed by the respondents on a scale from 1 (low) to 3 (high), on 5 aspects characterizing the online spending behavior: time, cost-effectiveness, product quality, purchase safety and judgement with respect to initial expectations. The first step has been the construction of the Hasse diagram. Figure 1 reports the Hasse diagrams representing the structure of comparabilities and the distribution of the respondents in each profile. The following step is to derive a synthetic measure from the structure of comparabilities. Through a simple procedure (Alaimo, 2020), it is possible to assign to each element of a finite poset a score representing its position in a "low-high" axis. In this way, we obtain the *average height*, i.e. the average position assumed by a profile in each of the considered linear extensions.

**Fig. 1. Satisfaction on online spending behavior - Hasse diagrams: general structure of comparabilities (on the left) and distribution of respondents in each profile (on the right).**



**Source: our elaboration**

We cannot use the average height – representing itself a synthesis – as an expression of the level of satisfaction, as it is a measure of (average) positioning of the profile in the general order. Furthermore, if we apply the quantile criteria to split the profile into groups, we could find in a single group profiles expressing very different levels of satisfaction and profiles of the same level in contiguous groups. In this way, we risk committing errors in attributing a satisfaction level to individual respondents. In addition to the position in the general order, we need to take into account the situation in terms of *satisfaction' deprivation* of each profile, by establishing a criterion to assign the response profiles to the "deprived" or "not-deprived" category. We can do this by defining a *threshold profile*. This choice allows characterizing the distribution according to a conceptual definition of the phenomenon. Starting from the partial order among the profiles, the aim of our analysis is to identify the deprived profiles, with respect to their distance from the threshold profile. By doing this, it will be possible to obtain a measure of the level of satisfaction of individuals that also takes into account the distance from a minimum level of satisfaction (the threshold) below which the respondents will certainly be dissatisfied. At the same time, it will be possible to identify all those profiles that will be dissatisfied

according to a certain level of uncertainty. Investigating the satisfaction of consumers that buy food via online grocery shopping can certainly be crucial for understanding consumer behavior thus giving new insights to retailers and producers as well as scholars and helping and defining valuable tools for improving the m-commerce.

*Keywords: food online shopping; index of consumers' satisfaction; online spending behavior; Italy; COVID-19 pandemic*

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## JVS INVESTMENT IN FAMILY AND NON-FAMILY FIRMS. DO IC COMPONENTS AFFECT ITS SIZE?

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### ABSTRACT

Joint ventures (JV) are the expression of a peculiar component of a company's intellectual capital (IC), i.e. its relational capital that represents the part of knowledge embedded in relationships with external stakeholders (Sharabati et al., 2010; Zambon, 2002). JV's literature addressed several topics such as JV's performance, innovation and internationalization. A stream of this literature has taken into account the effect of the characteristic of a firm's ownership and management on JVs' investment choices mostly focusing on the point of view of internationalization and entry mode choices (Sestu and Majocchi, 2020; Debellis et al., 2020; Scholes et al., 2016; Kuo et al., 2012; Claver et al., 2007) and innovation (Feranita et al., 2017). Literature has pointed out the influence of the unique bundle of resources generated by the interaction of family and business (Habbershon and Williams, 1999), on a firm's intellectual capital (Cabrera-Suárez et al., 2001). As a matter of fact, family firms rely on specific human capital intangibles provided by the family involvement in the firm and related to the founder's personality, the values shared by family members or the knowledge acquired from previous generations (Claver-Cortés et al., 2015). Family influence moderating role on the relation between IC and innovation (Diéguez-Soto et al., 2016), its effect on the relational capability development (McGrath & O'Toole, 2018) as well as family firms' unique characteristics in creating and governing Joint Ventures (Debellis et al., 2020) have been highlighted by literature.

Existent literature has highlighted the importance of verifying the interplay between components of IC, because they influence each other and certain components of IC can benefit from the improvement of other components (Johnson, 1999; Reed, 2006). As a matter of fact, research investigating the effect of IC on firms' financial performance and/or firms' market value has provided evidence that some categories of IC affect firms' performance or firms' market value indirectly, through their positive influence on other intellectual assets.

To the best of our knowledge literature has not yet investigated how the different components of IC are related to the investment in JVs. Therefore, it is of interest to analyze how a firm's ownership and management nature (family or non-family) affects the investment in joint ventures controlling for the effect of other IC components.

This paper addresses the following research question: Do family ownership and board characteristics affect investment size in JVs?

We address this R.Q. taking into account the effect of the other components of intellectual capital and of JV type (scale or link JVs). We base on the socioemotional wealth (SEW) concept that refers to the stock of affect-related value that a family derives from its controlling position in a firm (Gomez-Mejia et al., 2007; Gomez-Mejia et al., 2011; Berrone et al., 2012). It shapes firms' decisions and may affect the investment in JVs in different ways.

In so doing we analyze a sample of Italian, Spanish, German and French non-financial listed firms over the period 2010-2018. The sample is of particular interest as these economies are widely characterized by the presence of family businesses that have long-lasting family control (Franks et al., 2012).

The results indicate that JVs investment size is lower for family owned businesses than for non-family firms. A strong direct influence of the family on the board by the means of CEO duality as well as the link type of joined control reduce the investment size in JVs although family firms are more prone to engaging in link ventures than non-family businesses. Other intellectual capital components do not differently affect family and non-family firms' JVs investment size.

This study contributes to the stream of research on the determinants of family firm's investments. It also adds to the intellectual capital literature as well as to the existing research on joint ventures, by investigating the efficiency of which components of intellectual capital affects the size of investments in joint ventures.

*Keywords: joint venture, intellectual capital, family firms, link JVs, scale JVs, board characteristics*

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## DOES INTELLECTUAL CAPITAL COMPONENTS AFFECT INVESTMENT SIZE IN JOINT VENTURES? FAMILY VS NON-FAMILY FIRMS

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### ABSTRACT

Joint ventures (JVs) are the expression of an important component of a company's intellectual capital (IC), i.e. its relational capital. Literature has pointed out how the latter influences the development and performance of a firm's JVs (Aggarwal, 2019; Thuy & Quang, 2005; Liu et al., 2010) but the influence of the other components of the IC on JVs needs to be deepened.

Existent literature has highlighted the importance of verifying the interplay between components of IC, because they influence each other and certain components of IC can benefit from the improvement of other components (Johnson, 1999). Several studies have investigated the effect of IC on firms' performance and/or firms' market value, providing evidence that some categories of IC affect firms' performance or firms' market value indirectly, through their positive influence on other intellectual assets. The study by Bontis et al. (2000) reveals a direct and positive link between structural capital and a firm's performance, but also shows that human capital has a positive impact on both customer capital and structural capital. Wang and Chang (2006) detect a cause-effect relationship among four elements of IC and find that human capital helps improving IC elements that have a direct and positive impact on a firm's performance, namely innovation and process capital. Conversely, Cheng and Hsiao (2010) show that human value added is the IC component that most impacts a firm's performance, a maintainable customer relationships, whilst innovation and process capital positively influence the former IC components. Furthermore, firm value would be enhanced by innovation capital and relationship capital, that, in turn, would be positively affected by human capital and organizational capital (Tseng & Goo, 2005). Literature has also analyzed the interaction between IC efficiency and physical and financial capital employed efficiency, showing that the former amplifies the positive effect of the latter on a firm's performance (Seng et al., 2011).

To the best of our knowledge literature has not yet investigated how the different components of IC are related to the investment in JVs. Moreover, literature has pointed out the influence of familiness, the unique bundle of resources generated by the interaction of family and business (Habbershon and Williams (1999), on a firm's IC (Cabrera-Suárez et al. 2001). Family influence moderating role on the relation between IC and innovation (Diéguez-Soto et al., 2016), its effect on the relational capability development (McGrath & O'Toole, 2018) as well as family firms' unique characteristics in creating and

governing JVs (Debellis et al., 2020) have been highlighted by literature. So, it is of interest to analyze the effect of IC components on JVs taking into account the family nature of a firm's controlling owner and management.

This paper addresses the following research question: Does intellectual capital components affects investments size in JVs? In so doing, it analyzes a sample of Italian, Spanish, German and French non-financial listed firms over the period 2010-2018. The sample is of particular interest as these economies are widely characterized by the presence of family businesses that have long-lasting family control (Franks et al., 2012).

We investigate the effect of human and structural capital efficiency (Pulic, 2004) on the size of the investment in joint ventures in family and non-family firms in order to take into account the effect of the controlling owner and management nature. In so doing we control for the effect of: JV type - link vs scale (Hennart, 1988; Lourenço and Curto, 2010) – a number of board attributes, a firm size, capital employed efficiency, profitability and extra European Union operativity. We also control for firm, country, industry and year fixed effects. The results indicate that human capital efficiency has a significant effect on the size of the investment in JVs in general, but does not show differences between the family and non-family counterparts. The nature of ownership, per se, does not influence the size of the investment: what matters are the characteristics of the board in relation to the nature of ownership. The presence of CEO duality has an opposite effect on the size of the investment in joint ventures, as it has a lowering effect in family businesses whilst it exerts an amplifier influence in non-family firms. The type of joint venture, link vs scale, has a significant effect in presence of a family CEO and the choice of a link joint venture increases the size of the investment.

This study can contribute to both the literature on intellectual capital and to family business research.

*Keywords: joint venture, intellectual capital, family firms, link JVs, scale JVs, board characteristics.*

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## ANNUAL REPORTS AND CORPORATE CULTURE COMMUNICATION

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### ABSTRACT

Annual reports are a strong organizational communication tool. Since the 1960s, its scope, content, structure and format has radically changed (Beattie *et al.*, 2008; Lee, 1994; Stanton and Stanton, 2002). In addition to financial information, non-financial information is now reported as a stylistic means to represent the corporate identity of the organization and to influence external stakeholders (Hopwood, 1996; Lee, 1994).

Accounting has always incorporated words and numbers, but the role of narratives has increased substantially, including new disclosure categories (Davison, 2011a). This evolution is remarkable both in narrative and in design terms as annual reports are now characterized as sophisticated documents, with narrative and visual voluntary reporting sections (Beattie *et al.*, 2008; Davison and Skerratt, 2007; Hopwood, 1996). The increasing investment in visual appearance and in writing mode is underpinned by the organization's image management, the search for legitimacy in conveying of corporate social responsibility, also being seen as a mean of impression management (Davison, 2015), with connotative and denotative character intrinsically associated (Barthes, 1977; Davison, 2011a).

Annual reports are a powerful tool in communicating a holistic story of the organization to a wide range of audiences. Within annual reports, both numbers, words and visual presentation are used symbiotically to create the story. Therefore, organizations in communicating reality construct reality (Hines, 1988).

Considering accounting communication as a dynamic and interactive process between a sender (organization) and receiver (stakeholders), in a specific context, that intends to create, sustain and manage meanings (Merkl-Davies and Brennan, 2017), the annual report is a communication exercise, a "space of multitudinous signs" (Davison, 2008: 819). The selection and integration of narratives, language, visual images and other symbols in annual reports engage the reader as a co-maker of the story (Stanton and Stanton, 2002). These arguments support the study of the annual report's paratext, as defined by Genette (1987), and consequently the use of Barthes' (1977) model of denotation and connotation intermingled in the visual images, explored in accounting literature by Davison (2011a; 2011b).

This paper adds to the empirical work on the rhetoric of narratives and visual images in annual reporting by using the lenses of Genette's paratext and Barthes' rhetoric of the image (Barthes, 1977;

Genette, 1987). Therefore, this study analyses the use and motivations to include paratextual elements, particularly visual images, in annual reports.

This analysis is developed through an interpretive case study of a Portuguese company, the dst group - *Domingos da Silva Teixeira* (dst group- sgps, s.a.), during the period of 2008-2013. Data was gathered through the qualitative content analysis of dst group annual reports and through semi-structured interviews conducted with those involved in the conceptualization and preparation of the annual reports (the manager of Institutional Relations, Communications and Events; the designer; the responsible for External Communication and; the Chief Financial Officer).

All dst group annual reports include the paratextual elements, as identified by Genette (1987). The annual reports are different, both in graphic and visual terms, following a theme or concept. The physical format, the textual and visual epigraphs, and the Chairman's Letter are the distinguishing elements of the annual reports.

According to the interviewees, the motivations underlying the incorporation of paratextual elements in the annual reports stem from the intention to transmit: the company's identity and organizational culture; the credibility of the accounts; the organizational values; the company's social responsibility and the company's support to culture. The respondents recognize the importance of paratextual elements and its connotative and denotative meanings that, although intentional and part of a message to be transmitted, can be interpreted in different ways by different stakeholders, as suggested by Barthes (1977).

This study demonstrates the potential of the annual report as an instrument of communication between an organization and its stakeholders and illuminates the way in which discretionary narratives and visual images highlight and supplement accounting information. The results evidence that the dst group recognizes and explores the potential and value that their annual reports pose to communication of its identity and organizational image to its stakeholders.

*Keywords: annual reports, accounting, corporate communication, organizational culture, paratextual elements, visual images.*

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## CONSUMER CULTURE THEORY AND CONSUMPTION COMMUNITIES: A FIRST APPROACH TO VEGAN COMMUNITIES

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### ABSTRACT

In 2005, Arnould and Thompson presented a branding for consumer culture theory (hereby named CCT), a new research tradition in consumer behaviour, with contributions from other social sciences (Bode and Østergaard, 2013; Casotti and Suarez, 2016). CCT's field contributions are grouped into four theoretical frameworks, one of which is marketplace cultures (Arnould and Thompson, 2005). Marketplace cultures refers to the relationship of the consumer with the marketplace, defined in terms of consumption communities (Schau, Muñiz and Arnould, 2009). There are three types of consumption communities: subcultures of consumption, consumer tribes and brand communities (Canniford, 2011). However, they can change their network configurations over time (Canniford, 2011; Hook, Baxter and Kulczynski, 2018). Simultaneously, social media changed consumption communities' characteristics (Arvidsson and Caliandro, 2016); and consumer's interactions (Lima, Irigaray and Lourenco, 2019). Ethical and political concerns are modifying buying behaviours (Cherry, 2015) as exemplified by vegan communities. Nevertheless, the changes in consumption communities and consumer behaviour enhanced by social media and ethical and political concerns are still understudied.

The main purpose of this research is to identify the main contributors to the CCT, consumption communities and vegan communities' literature since 2005 until nowadays. Departing from a bibliometric analysis using the Software Vosviewer, a systematic literature review is currently ongoing. Following the method from Sarmiento and Simões (2018), a plan was defined for the identification of relevant studies in the Scopus and Web of Science databases. The selected research is based on the following criteria: 1) only journal articles in English language are selected; 2) the articles selected are peer-reviewed; 3) the journal articles are published in Q1 or Q2 journals; 4) the timeframe for reference is 2005-2020; 5) at least one of the following needs to be included in the article's keywords: Consumer Culture Theory; Consumption Communities; Vegan Communities.

So far, research in Scopus and Web of Science for Consumer Culture Theory led to 58 articles published in Q1 journals and 17 in Q2 journals. For the connection between Consumer Culture Theory and Consumption Communities, the databases selected returned 19 articles, out of which 14 were published in Q1 journals and 5 in Q2 journals. No results could be found when combining Consumer

Culture Theory and Vegan Communities. These results show the popularity of CCT in well-renowned journals, as demonstrated by Bode and Østergaard (2013). The findings also support initial assumptions that the connections between CCT and consumption communities have been understudied.

This work attempts to shed light on the avenues for further research on the topic. Hence, it will hopefully contribute to the literature in CCT and consumption communities.

*Keywords: Consumer Culture Theory; CCT; Consumption Communities; Vegan Communities; Systematic Literature Review.*

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## TECHNOLOGICAL INNOVATIONS AND ARTIFICIAL INTELLIGENCE IN INTERNATIONAL MARKETING RESEARCH: A SYSTEMATIC REVIEW

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### ABSTRACT

In today's era, novel technological innovations are introduced every year and change the dynamics of the global competitive arena, economies and markets, as well as the society itself in formidable ways. Such technological innovations include, artificial intelligence (AI), human-like products, big data, cloud computing, Augmented and Virtual Reality, machine learning, cryptocurrencies and blockchain applications, Internet-of-Things (IoT), and Cognitive Systems, among others (e.g., Kumar et al. 2016; Longoni et al. 2019; Ng and Wakenshaw 2017; Belk 2013). New technological innovations have enabled a radical shift towards the creation of innovative products, such as electrical vehicles and new innovate processes, such as the use of 3D modelling in product development (Evers, Cunningham, & Hoholm, 2014). In the international perspective, several researches studied the role of internet to improve international activities (Aspelund, Koed Madsen and Moen, 2007; Øystein, Tage and Arild, 2008) for exporters (Gabrielsson and Kirpalani, 2004; Morgan-Thomas and Bridgewater, 2004; Mathews and Healy, 2008), and companies (Lu and Julian, 2008) of different sizes (Arnott and Bridgewater, 2002). The investigated aspects regard the communication activated through the usage of internet (Prasad, Ramamurthy and Naidu, 2001).

However, for the international business the international marketing is still considered an under-investigated theme (Gaur and Kumar, 2018) as well as the impact of technological innovations on communication (Leonardi & Vaast, 2017; Sarala, Vaara, & Junni, 2019), and on the internationalization process (Knight and Liesch, 2016) which highlight the multidisciplinary of such topics. Also, work that provides a holistic understanding of the role of such technologies in marketing within the global arena is absent. Based on this, in our knowledge this would be the first work investigating the role, influence and use of artificially intelligent technological innovations in the context of international marketing research. The purpose of the article is to provide a holistic understanding of the relationship between artificially intelligent technological innovations and their role, use and influence on the marketing practices of international businesses. Our research question is "how are the various artificially intelligent technological innovations used in the marketing practices of international organizations?". Using the "Antecedents-Phenomenon-Consequences" logic (Narayanan, Zane and Kemmerer, 2011; Pisani and Ricart, 2016), the objective of this study is to develop a systematic review on the theme,

contributing to: (i) review the extant research, (ii) generate a multi-dimensional framework based on technological innovations and international marketing for academics and practitioners; (iii) find the relevant theoretical insights and knowledge gaps, which could draw the path for future research carried out by scholars, (v) as well as to find guidelines, that represent the empirical implications useful for practitioners.

As regards to the scope of our review, we focused on articles that are published on the leading marketing journals, because such journals substantially contribute to academic development in the field (Christofi et al., 2019). Hence, we followed examples of existing state-of-the-art systematic reviews (e.g., Vrontis & Christofi, 2019), and focused on studies in peer-reviewed journals ranked 3, 4 or 4\* in the ABS 2018 ranking list. To identify such studies we will use EBSCO Host Business Source Premier database as it provides the biggest coverage of business journals (Kranzbühler et al. 2018). Next, based on standard practice from state-of-the-art reviews in leading journals (e.g., Gaur & Kumar, 2018), we will focus on full-length, peer-reviewed articles and exclude book reviews, commentaries, editorials, conference proceedings and replies. Following a combination of the search terms included in existing reviews on technological innovations (Glikson & Woolley, 2020) and international marketing (Seggie, 2012), the keyword search formula to be employed in the current study is the following: (*"artificial intelligence" OR "machine learning" OR "computational intelligence" OR "soft computing" OR "data mining" OR "evolutionary computation" OR "evolutionary programming" OR "genetic algorithm" OR "genetic programming" OR "fuzzy systems" OR "deep learning"*) AND *"international marketing"*. The keyword formula will be used in order to search the titles, abstracts, and keywords of studies, in line with previous practice (Christofi et al., 2019).

*Keywords: Technological innovations; artificial intelligence; international marketing; systematic review.*

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## EXAMINING THE ROLE OF ORGANIZATIONAL CULTURE IN CORPORATE SUSTAINABLE DEVELOPMENT

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### ABSTRACT

In the current competitive environment, sustainability indicators have risen as new competition arenas among companies along with traditional financial indicators such as liquidity, revenue stream and profitability. This has led to the ubiquitous implementation of social responsibility programs and environmental management systems by firms. However, it has been asserted that companies must not only apply such managerial measures for the sake of fulfilling a sort of mandate, but that, in addition, an organizational sustainability culture is needed to guarantee the long terms performance and survival of companies. The question that remains is how such organizational sustainability culture should be understood and brought to the managerial practice; moreover, there needs to be clarity on how to nurture a corporate sustainability culture within the firm. For this reason, this article aims to revise the scope of the mainstream theoretical contributions that have allowed corporate sustainability culture to become a rising tendency in the business administration discipline. For this purpose, we revise the conceptualization of the three elements of this construct: namely, corporate culture, sustainable development, and corporate sustainability. In this sense, we first revise how the corporate culture has been understood and decodified as a source of strategy; this sets the basis for aligning the array of beliefs, costumes, and values of the intra-organizational environment with the sustainability principles and ethos. Second, we explore how sustainable development has been conceptualized as a business objective that has become a key variable in determining a firm's competitive strength; thus permitting the consolidation of the sustainable corporation construct in alignment with the Sustainable Development Goals (SDGs). And finally, we introduce a conceptual framework for corporate sustainable development that integrates sustainability principles and its praxis with the necessary elements for nurturing a corporate culture that is able to embrace organizational sustainable behavior. Hence, we contribute to the current literature by integrating into a framework the key elements for the construction of a responsible company that carries sustainability in its corporate culture and identity.

*Keywords: Organizational Sustainable Development; SDG; Organizational Culture; Corporate Sustainability*

# EMOTIONS IN INTERNATIONAL DECISIONS: A SYSTEMATIC REVIEW AND SYNTHESIS

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## ABSTRACT

## INTRODUCTION

Emotions and rationality have been juxtaposed as opposite ends (Solomon and Stone, 2002). Yet “*the only way to make rational decisions is to tag cognitions denoting options with emotions that give a person a sense of utility*” (Turner, 2009, p. 343). In the recognition of this, researchers within the International Marketing (IM) and International Business (IB) field have highlighted that positive and negative emotions shape actors’ international behaviour (Leonidou *et al.*, 2019). This is not surprising given that decisions that are taken in an international context are complex and they are characterized by high uncertainty and risk (Eduardsen and Marinova, 2020), hence giving room for a lot of emotions in businesses international decision-making processes (Langley *et al.*, 1995).

Although emotion research has started to expand within the fields of IM and IB the last two decades (Leonidou *et al.*, 2019), up to the authors’ knowledge, there is no systematic literature review on emotions in international decisions (IDs). In addition to this, emotion research in the fields of IM and IB remains interdisciplinary since researchers borrow theories from other research fields such as the appraisal theory from psychology (e.g. Andersen and Kumar, 2006). These aspects highlight the need for a systematic literature review in order to keep up with state-of-the-art research and to be at the forefront, as well as to assess the collective evidence in the particular research area of emotions in IDs.

Bearing these aspects in mind, the aim of the present study is to provide a *qualitative systematic review of the literature* on emotions in IDs. In doing so, we address the following research questions: (1) *what are the key themes in the literature on emotions in IDs?* (2) *what are the overall findings within each theme?* (3) *what are the main gaps in the literature?* and (4) *where should primary research effort be directed?* A qualitative systematic literature review is especially important when one is seeking to map an emerging field conceptually, to identify knowledge gaps and to assess the state of the art (Snyder, 2019).

## METHODOLOGY

There are different types of literature reviews, yet, it is the research question of the review which determines the appropriate type to use (Christofi *et al.*, 2017; Snyder, 2019). Our research questions highlight the need for a *qualitative systematic literature review*. A qualitative systematic literature review follows a systematic review process to collect articles, and then a qualitative approach is used to assess them (Snyder, 2019). Taking this into account, the process of conducting our literature review is inspired by literature review scholars such as Christofi *et al.* (2017) and Gaur and Kumar (2018). In particular our literature review follows three steps, namely: (i) locating the relevant research, (ii) conducting content analysis through the use of a conduct computer-aided text analysis (Atlas.ti), and (iii) writing up the review by reporting the results by aggregating under thematic headings and highlighting promising research themes.

To locate our data pool of articles we used inclusion and exclusion criteria. We also used specific keyword terms. To locate the keyword terms for our review and given that a single agreed definition on the term “emotion” remains elusive (Kellermans *et al.*, 2014), we started the review process by initially reading a highly cited paper in the emotion literature (Ashkanasy *et al.*, 2002). Next, we conducted an initial search in the Web of Science and Business Source Complete databases. We searched keyword terms (*emotion* or *feel\** or *affect\**) in the title, abstract and/ or keywords by focusing our search in the most influential journals publishing IM and IB research (e.g. *Journal of International Business Studies*, *Journal of International Marketing*, and *International Marketing Review*). In line with the suggestions of Morgan *et al.* (2018) the criteria for journal selection were based on previous ratings of journals in IM and IB disciplines. Although the exclusion of articles published in conference proceedings or book chapters or unpublished research studies, may bring with it a risk of publication bias (Kepes *et al.*, 2012), we took the view that increased scientific rigour would be achieved by basing our results on peer-reviewed academic publications. Finally, since we wanted to focus our review on emotions on IDs, we search for the term international within the content of the articles. This process rendered a sample of 212 articles. To analyse the identified articles we used a computer-aided text analysis namely, Atlas.ti which allowed us to track coded text and extract it, along with corresponding coding categories, for reporting. It also provided functionalities for data interpretation and summarization (cf. Gaur and Kumar, 2018).

## FINDINGS

Preliminary findings show that most emotion research appears in the *Journal of International Business Studies* and in *International Marketing Review*. Authors use different definitions depending on the

aspects of emotions that are relevant for their study, but the most used definition is the one given by Lazarus (1991).

IM and IB research on emotions can be separated in two research streams with regard to the different types of businesses, namely emotions in family firms and emotions in other types of businesses. Emotions seem to affect more family members than non-family members (e.g. external managers) (Kellermanns *et al.*, 2014). Regardless of the business type, emotions have been studied within IB relationships (e.g. Andersen and Kumar, 2006; Leonidou *et al.*, 2019) which seems to be a promising future research area.

Our literature review is currently under the analysis of the identified articles and is expected to bring into light other important key themes on emotions in IDs. Moreover, this literature review will bring to the fore the research gaps and will highlight where the primary research effort should be directed.

## CONCLUSIONS AND CONTRIBUTION

Up to the authors' knowledge this literature review comprises an initial attempt to encompass the interface of emotions and IDs. Although previous research in emotions has provided useful insights into specific aspects of emotions, they have given only a limited understanding of the key themes driving emotion research in IDs. Nevertheless such an understanding is important in order to advance the IM and the IB field.

The principal contribution of our study is to synthesize and organize the state of knowledge with regard to emotions in IDs and to create an agenda for further research. By doing this, we can help to consolidate previous emotion research and reach conclusions to advance the academic discussion and facilitate further theory development on emotions within the IM and IB field (cf. Eduardsen and Marinova, 2020). Finally it should be noted that this literature review should be of interest to readers not only in the areas of IM and IB, but also in the areas of Family Business and Business-to-Business.

*Keywords: systematic literature review, emotions, international decisions, qualitative analysis*

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## EX-ANTE AND EX-POST DIFFERENCES IN FIRM-LEVEL CHARACTERISTICS OF U.K. MERGERS AND ACQUISITIONS

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### ABSTRACT

Under market condition, mergers and acquisitions (M&As) often endow prospective wealth, and are executed to achieve financial synergy and strategic growth (Leland, 2007). Pre- and post- financial firm related characteristics are highly significant to understand M&A phenomenon. Studies surrounding M&As either examine announcement price-reaction employing variants of pricing models (Fuller et al, 2002); or pursue an accounting approach based on firm level indices (Hassel et al. 2003). The announcement price-reaction studies evaluate the changes in financial performance of merged firms assuming such changes maximize shareholders' wealth. The accounting approach examines firm-specific characteristics of merged firms and a combination of the financial performance of acquirers and targets prior to the mergers (Healey et al., 1992; Powell and Starks, 2006). Such studies, however, mostly focus on ex-post performance of mergers and disregard ex-ante financial characteristics that differentiate acquirers from the targets. Firm-specific characteristics that may influence the decision of undertaking merger are relative less studied (Schiffbauer et al., 2017; Mulherin et al., 2017; Boateng et al., 2019). This is despite the fact that equally important is the financial performance of the firms before mergers, which demonstrates whether as separate groups, acquirers and targets have financial characteristics that are worth exploiting (Elstak et al., 2015). We analyze these characteristics before and after mergers and the strategic impact they may bear on the performance of firms, contributing to an understanding of the reported under-performance of firms after mergers (Dickerson et al., 1997). In particular, to explore the underlying rationales of M&A success, we have undertaken accounting approach contrary to an event study approach. The firm-level accounting indices cover long-term time-horizon for assessing the financial characteristics of the firms, compared to announcement effect studies, which are confined to event-window. Importantly, although firms can window-dress their financial reports and/or manipulate earnings upwards around merger periods, accounting measures are less affected by temporary changes in market conditions (Erickson and Wang, 1999). While separate the pre- and post- financial measures so that their characteristics can be captured more directly across both the periods, we use a representative control sample of firms against which we match the accounting indices for both acquirers and targets.

Against this background, we draw on signalling and monitoring theories to examine how ownership concentration characteristic of pre- and post- M&A firms in the UK presents a possible avenue for examining the managerial choice. We also aim to understand to what extent firm related characteristics including risk and liquidity constraints could further expand on the managerial discretion argument through direct effect or interactive effects. Furthermore, we investigate how the potential growth opportunities for M&A firms can be explained through firm-level internal input and other externalities.

Our study addresses several significant aspects of merger and substantively differs from prior studies, attending to ownership concentration, risk and liquidity constraints of firms engaged in M&As. Unlike conventional merger studies (Bradley and Sundaram, 2006), our dataset is rather comprehensive; thus, captures wider event-induced effects of M&As.

Our study finds that pre-event systematic risk and ownership concentration of acquirers are lower compared to both their control sample and target firms. The lower ownership concentration suggests that acquirers are less restricted when undertaking M&As or pursuing managerial self-interests contrary to their control sample or targets. Post- event systematic risk is reduced relative to the control sample while ownership concentration has increased. The lower systematic risk originates from the post-event positive cash receivable, thereby limiting liquidity constraints, while the lower ownership concentration results from the issuance of shares to fund cash deals. This means, in turn, the executives of merged U.K firms are constrained to undertake post-event sub-optimal decisions.

*Keywords: M&A performance; Ownership, Liquidity; Growth*

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## GREEK CONSUMER PREFERENCES OF WINE: AN APPLICATION OF THE BEST-WORST SCALING METHOD

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### ABSTRACT

Taking into consideration the on-going developments and growing competition in the wine industry, understanding consumer preferences of wine is essential. Many studies analyse consumer behaviour with respect to wine following either quantitative and qualitative methods (Charters and Pettigrew, 2007, Corduas et al. 2013, Mehta and Bhanja, 2018). While these studies offer insight on consumer preferences and behaviours, the methods used do not allow for their results to be safely compared across contexts. A method that has been proposed to overcome this issue and has been used in the wine marketing literature is the best-worst scaling (Marley and Louviere, 2005). A number of studies have measured and compared consumer preference across a wide number of countries using the best-worst scaling method (e.g. Goodman et al., 2008; Goodman, 2009). These studies are based on evaluating consumer preferences on extrinsic cues (e.g. origin, price, brand), which are those that enable wine producers and sellers to create marketing innovations.

Despite the high number of countries that have used the method to assess consumer preferences for wine (Chrysochou et al., 2012; Cohen et al, 2009; Goodman et al, 2008; de Magistris and Royo, 2014), no study has used the method to assess consumer preferences of wine in Greece. In this study, we thus aim to explore consumer preference of wine following the best-worst scaling method (Marley and Louviere, 2005), with the aim to compare Greek consumer preferences for wine to other contexts where the same method has been used.

The data were collected using questionnaires from 220 consumers in Greece. The questionnaire consisted of 13 attributes (see Figure 1) that are identified on earlier studies following a similar approach in measuring wine consumer preferences in other countries (Goodman, 2009; Casini et al., 2009; Chrysochou et al., 2012, Corsi et al., 2020). Following a similar procedure, the attributes were combined in a systematic way following a Balanced Incomplete Block Design in choice sets of 4 attributes. For each set, participants were asked to choose the most and the least important attribute that influenced their choice when buying wine from a retail store.

The attributes are presented in Figure 1 according to their importance in a descending order. The most important attributes are whether the consumers have tried the wine in the past (1.90). The next two most important attributes are the price of the wine (1.08) and whether the wine has been

recommended by a friend or relative (0.96). On the other hand, the least important attributes are the alcohol content (-2.14), followed by the typical advertisement inside the store (-1.74) and the attractive label (-1.31).

We further grouped consumers (see Figure 2) according to their usual store of purchasing wine (supermarket, local store, liquor store) and compared their preferences when buying in wine. Consumers who buy wine from a supermarket or a local store emphasize more price and the fact that they have tried the wine in the past. On the opposite consumers buying from a liquor store give more importance to wine credence characteristics such as brand, origin, medals. Consumers who buy wine from a local store consider as more important that the wine matches with their food. The attractive label is rated as more important by consumers who buy wine from a liquor store, as opposed to those who buy from a supermarket, while the alcohol content is considered as more important by those who buy wine from a local store, as opposed to two other categories.

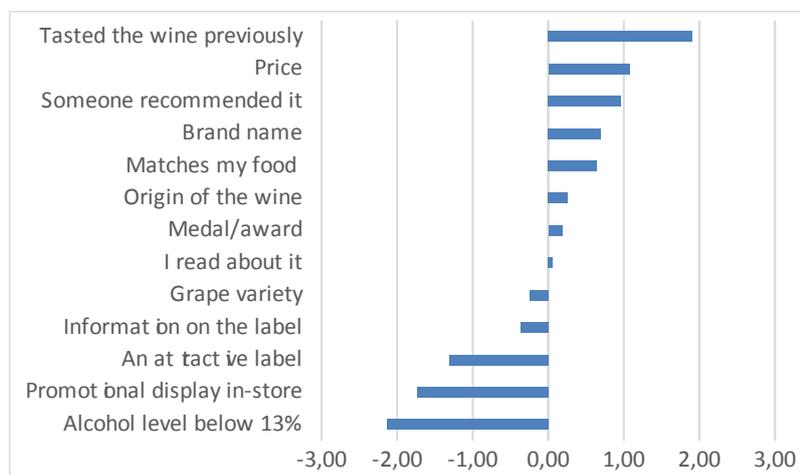


Figure 1. Choice influencers of Greek consumers

Because the present study focuses on the consumers' preferences in regards the extrinsic wine cues, the findings extend those of the previous studies analysing consumer preferences of wine using the best worst scaling method. The most important cues identified to impact the buying preferences in Greece are in accordance with those identified in most markets. More specifically, previous experience and familiarity with the wine, and word of mouth are important drivers of choice. Similarly, alcohol content, as well as labels, attractive packaging and in-store communications do not drive choice. This latter finding provides support to earlier arguments that consumers don't believe they are influenced from marketing stimuli that act in an implicit manner. The price is also a characteristic that Greek consumers consider to be between the three most important, which is not the case in previous studies. It can be attributed to the impact of the economic recession in Greece. The results further confirm the ability of the method to identify the extrinsic cues that influence consumers choices for wine. In an effort to segment the market, we find that preferences vary depending on the store from which

consumers buy their wine. Thus, we conclude that there are important characteristics beyond those of the product, in which producers and sellers contribute, and it should be taken into account in the wine marketing management. More specifically, producers and sellers should focus on the 'previous experience and familiarity with the wine', 'word of mouth' as well as 'price' to create marketing innovations, while the mini markets and liquor stores should give more emphasis on the characteristic 'wine matches my food'. In addition to that, the sellers could be able to improve store quality and economic efficiency if they take into consideration the consumers' buying preferences to properly schedule product variety and inventory levels.

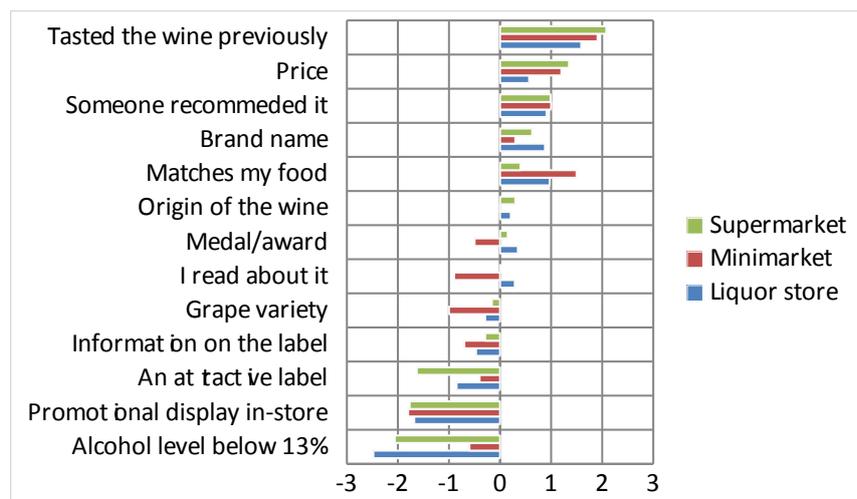


Figure 2. Choice influencers in per store type

*Keywords: wine, best worst scaling, Greek consumers, retailing outlet, extrinsic cues*

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## TAKING A DIFFERENTIATED PERSPECTIVE OF AGE IN THE WORKPLACE - AN EMPIRICAL TEST OF THE GATE-FRAMEWORK IN THE ICT-INDUSTRY

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### ABSTRACT

Negative prejudices against older employees are prevalent in the ICT-industry. Particularly, age-related restrictions regarding training may increase older workers' turnover intention (Bentley et al., 2019), since ICT-professionals want organizational support (Taneva et al., 2016). However, studies about employees' age diversity and specifically older employees' ITQ are relatively scarce (Taneva et al., 2016).

To avoid employee shortages in the ICT-industry due to ageism, rethinking the concept of chronological age is essential. Scholars have called for a more differentiated perspective of age as a construct (e.g. Hernaus et al., 2019). In North's recently developed framework, he posits disentangling age-based components involving *Generation, Age, Tenure* and *Experience* or „GATE“ (North and Shakeri, 2019). Every single GATE-element is associated with a separate body of literature revealing inconclusive predictions for older workers' job outcomes (North, 2019). Nevertheless, these bodies of literature provide the potential for developing a more differentiated conception of older workers.

Since GATE has not yet been empirically tested, it is unclear if GATE's four components add value to a differentiated perspective of age. In addition, North's discussion of the relationship between GATE-elements and performance refers predominantly to cross-sectional studies, neglecting potential longitudinal effects. In North's original publication, he related the GATE components to job performance. Due to data limitations, we take an employee's voluntary intention to quit (ITQ) as a reverse proxy for job performance since a recent meta-analysis found a significantly negative relation between ITQ and performance (Zimmerman and Darnold, 2009).

The purpose of our study involves an empirical test of North's GATE-framework in the ICT-industry, thus contributing to a more differentiated conceptualization of age. Since the general turnover trend of ICT-workers remains high (Lo, 2015), an ITQ-related approach is adopted. We combine age-related constructs with changes in ITQ of ICT-professions using the database of the Socio-Economic Panel (SOEP) and structural equation modeling (SEM) for the group of ICT-workers. These constructs, which have often been regarded as linked, are checked individually over time for their influence on ITQ.

In terms of methods, a longitudinal ordinal logistic regression is appropriate to calculate correlations between the exogenous GATE-constructs and ITQ, because the endogenous variable is categorical and

ordinal. The logistic regression analysis is combined with SEM to better detect the changes of effects over time. We focus on three data points spread over a period of 10 years (2009; 2013; 2018) involving a sample size of 238 ICT-employees and cover the age range between 18 and 68 years. This approach allows uncovering age-related patterns in the change of ITQ (e.g. extent of stability) in ICT-occupations over time identifying longitudinal effects of GATE-elements on ITQ.

We discuss implications for future research and for practice with a focus on the most predictive age-based constructs for ITQ regarding age-sensitive training that consider different forms of motivations of older and younger ICT-workers for example. Hence, our study contributes to counteracting the overemphasis of chronological age in common stereotypes.

*Keywords: Age Diversity, Age Discrimination, Ageism, Older Workers, Aging Workforce, Information and Communication Technology, Job Performance, Turnover Intention, Human Resource Management, Organizational Behavior.*

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## DEVELOPING WOMEN LEADERS: AN EVALUATION OF A COACHING INITIATIVE

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### ABSTRACT

In addition to the celebrations of the Pankhurst Trust 2018 Centenary Events when Some Women achieved the vote – and, a year that drew attention to the need to continue to ensure women are equally represented in positions of power in the workplace as demonstrated by the *#me too* social movement and a year when the Social Mobility Commission demonstrated the slowing down of social mobility. By March 2018 the publication of the Gender Pay Gap certainly confirmed the need for more action to be taken. The coaching project was an initiative launched by a group of women under the auspices of the Pankhurst Trust who particularly recognised the undervalued skills of women in civic society and also jobs in the hospitality and retail sector. We were keen to offer an alternative to the corporate websites with coaching courses that might not been seen as relevant to the target group. Talking with a variety of senior women in both the private but mainly public sector we found a great deal of support for the idea of a different sort of coaching service and target group and offers to volunteer for any such initiative.

Much has been written about the need for diversity, equity and inclusion in the workplace (Bond and Pyle, 1998; Kelly and Dobbin, 1998; Liff and Wajcman, 1996). A recent survey by Price Waterhouse Coopers highlighted that over 80 percent of CEOs are focussed on promoting diversity and inclusion in their organizations. Coaching initiatives are a vital component for establishing a successful workplace diversity and inclusion programs. Moreover, companies with greater gender and cultural diversity have shown an overall increase in their revenues (Hunt et al, 2018). Still, we find that that the majority of organizations who provide coaching have only paid lip-service to the needs of their employees in terms of their personal and career development (Feldman and Lankau, 2005; Kampa-Kokesch and Anderson, 2001; Mackie, 2007). The majority of women including minorities remain under-represented in many occupations, most notably in high level positions (Hunt et al, 2018). Research has shown that coaching is a vital not only for professional development but to also improve self-confidence, build networks and provide a balance between work and home life (Coffey et al, 1999; Ruderman and Ohlott, 2002) (Birkeland et al, 1997; Peterson, 1993). However, there is little

research that examines how and why coaching works (Ely et al. 2010; Feldman and Lankau, 2005; De Meuse et al, 2009), especially for women who lack access to these resources. Moreover, the coaching literature is insufficient on diversity in terms of research. This may be related to the fact that the coaching literature itself is relatively sparse with adhoc studies (Spence and Oades 2011).

To respond to the lack of research in evaluation of coaching programs for leadership development for women (Kauffman and Coutu 2009, Grant and Cavanagh 2007), this paper presents a coaching evaluation that includes both a summative and formative evaluation (Beyer, 1995; Brown and Gerhardt, 2002; Patton, 1994) of the client, coach, client-coach relationship and the coaching process, as well as summative evaluations of the coaching program. The overall aim of this research was driven by the recognition that women across various sectors do not have access to coaching or a leadership related network whether because of their socio economic and cultural background or the type of workplace/civic role they undertake. The purpose of this paper is to evaluate the effectiveness of a coaching program for women from various organizational backgrounds, with the aim of highlighting the significance of coaching as a powerful tool for diversity, equity and inclusion amongst women in their workplaces. We believe that the role of coaching can help better support the holistic well-being of women from diverse backgrounds and help us understand the full range of factors that underlie women's decision to accept promotion or not as well providing valuable insights into the dynamics at play within their workplaces. It can also help better support the overall well-being and health of both coaches and coachees. Our report shows the findings of an evaluation of the process of designing and delivering the first phase of the service and to move to evaluate the impact. This research builds on an emerging evidence base (Friedman et al, 2017; Hunt et al, 2018; see Social Mobility commission Report- 2018-19) that demonstrates that women fail to reach their potential in both public/community and corporate life, particularly those from working class and diverse backgrounds who have little or no access to a leadership related network. Interviews and data collected from our sample of women revealed that coaching is the key in helping them to make conscious choices and become more inclusive and take actions to make their organizations more equitable. Moreover, Our, initial evaluation of the coaching program has highlighted that coaching is a key activity in the management development, talent management and performance improvement of women leaders across the Greater Manchester area (Pankhurst, 2019).

*Keywords: women, leadership, diversity, equality, inclusion, networking, identity, engagement, professional development, evaluation.*

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## THE UPPER ECHELONS THEORY – THE HRM PERSPECTIVE

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### ABSTRACT

In today's business environment, organizations have come to relying more on the top management team in order to influence on firm performance (Bass, 2019; Tanikawa and Jung, 2019). Hence, although IHRM headquarters in the MNCs' parent country is a central actor, the area receiving the most research attention at this level usually dealt with HR policies and practices, but neglected analyzing the central actor itself (Welch and Björkman 2015). According to Hambrick's (1994 2007) Upper Echelons Theory, IHRM headquarters can be considered as one of the organization's top management groups (TMGs). However, little is known about how IHRM headquarters as TMG organize and structure themselves to meet these challenges.

Hambrick (1994) first coined the concept of *top management team behavioral integration* in his Upper Echelons Theory. Top management groups (TMGs) play a key role in shaping work processes and influencing organizational outcomes (Alderson, 1993; Lubatkin *et al.*, 2006) and in dealing with the process of ongoing globalization (Nielsen, 2010). A well-designed and functioning TMG is one that is behaviorally integrated (Hambrick, 1994). Moreover, TMGs must pay attention to the contextual content and the consequent output of its shaping (Johns, 2018). Given this, more work is necessary regarding the makeup of TMG dynamics and its work context (Carmeli, 2008), especially role of top HRM executives. According to the *Upper Echelons Theory* (Hambrick, 1994 2007), the challenge of this study is to extend our understanding of IHRM headquarters as one of the TMGs and its organizational context. Hence, this study may thus provide important insights and create an understanding of integration processes and the organizational context that can be applied in IHRM headquarters, as one of the TMGs, and that may contribute to the successful achievement of competitive strategy needs of international businesses.

### RESEARCH METHOD

Face-to-face semi-structured interviews were conducted with twelve HRM senior HR managers from different advanced international technology companies. Coding and data analysis were performed using the process suggested by Miles and Huberman (1994).

## FINDINGS AND DISCUSSION

The findings illustrate a cross-level phenomenon that contributes to understanding the contexts of IHRM headquarters. The starting point was IHRM goals that relate to all HRM functions, which require integration for their realization. Goal clarity increases coordination among TMG members and provides both a strategic and a motivational focus (Vasilaki and O'Regan, 2008).

The organizational level includes two themes: *The matrix structure and shared values*. TMG reflects work processes and company structure (Hambrick and Mason, 1984). This study raises initial thinking about the impact of the organizational structure on integration in IHRM headquarters. While the organizational structure is challenging in creating integration in HRM headquarters, shared values that support integration may facilitate this process. Leadership recognition in creating an information sharing culture is very important (Martinho *et al.*, 2016). Additionally, shared values facilitate cooperation between colleagues, thereby leading to mutual trust (Yu *et al.*, 2015).

Furthermore, the IHRM headquarters level includes two themes: *Strategic IHRM and trust among IHRM members*. First, in an international business context with multiple national settings, TMGs integrate the diverse perceptions and orientations to create core competencies and develop a global strategy (Hambrick, 1998 2007). Since IHRM headquarters play a key role in developing the HR strategy, this strategy may serve as a framework for integrating the IHRM's policy and practices. Second, trust was found to engender successful cooperation and synergistic team relationships (Kidron *et al.*, 2016). This finding stresses the importance of the relationship between goal interdependence and trust among IHRM members.

Finally, a well-designed and functioning TMG is one that is behaviorally integrated (Hambrick, 1994 1998). Two integration devices - *behaviors foster integration and HRM integrative technology* exist side by side, each strengthening internal integration according to its advantages. Information sharing and collaboration provide the TMG with a broad set of insights that sensitize a variety of inputs (Simsek *et al.*, 2005) that may help them make strategic decisions. HR information systems are an essential component for competent management of HR and act as a prominent integration device for effective management of organizations (Anitha & Aruna, 2014; Aruna, 2015). In this sense, HRM experts who take part in those communities of practice share a meaningful experience, knowledge, and information (Tansley, 2005), and as a general rule increase their collaboration.

## PRACTICAL IMPLICATIONS

The HR department obviously plays a key role in developing HR policies, tools, processes and intended practices (Kradjova-Stoven & Mujtaba, 2016). Integration in IHRM headquarters should be

based primarily on a clear and shared goal. If IHRM headquarters would like to coordinate and integrate their activities, there should be a shared understanding of the situation.

The increasing fragmentation of HRM work must include how the HRM is reorganized and disordered within and outside its boundaries (Caldwell, 2008). In this respect, the IHRM headquarters' members play a role in directing and coordinating HRM practices, considering the organizational structure.

IHRM headquarters should be based on a HR strategy and should embrace a climate of trust. IHRM headquarters may play a key role in the planning and execution of an integrative IHRM strategy through using integration devices. Concurrently, integration devices cannot be conducted without mutual trust between members of the IHRM headquarters.

*Keywords: Upper Echelons Theory, International human resource management headquarters, Integration, Top management groups, Qualitative study*

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## THE ROLE OF PSYCHOLOGICAL CAPITAL AND SOCIAL CAPITAL IN FOSTERING ORGANIZATIONAL PERFORMANCE

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### ABSTRACT

#### THEORETICAL BACKGROUND

One of the biggest challenges faced by HRM is to encourage employees to invest their resources for the benefit of the organization (Knies et al., 2017). Resources have intrinsic value, and therefore may form an excellent basis for flourishing in the workplace and optimal performance (Gorgievski et al., 2011). Nowadays, while no processes are maintained without the valuable contribution of an experienced individual, the importance of the human factor is remarkable (Isik et al., 2015).

Drawing on the *conservation of resources* (COR) theory, which has become a fundamental theory in the emerging field of positive psychology (Hobfoll, 2011), we propose that positive human capital resources such as psychological capital (PsyCap) and social capital are likely to influence perceived organizational performance (POP) through organizational trust as a mediator and proactive behavior as a moderator. PsyCap and social capital are two distinctive resources, or, as Burt argues that "while human capital refers to individual ability, social capital refers to opportunity" (1997: 339). Focusing on those two types of resource as part of a greater dynamic process provides a comprehensive theoretical framework for an active and positive psychological perspective in the world of work (Gorgievski et al., 2011), in terms of our understanding of its impact on the POP in the public sector. Considering that the question of whether and to what extent HRM contributes to performance has been prominent on the research agenda, there is a relative lack of research on HR in the public sector in developing countries (Knies and Leisink, 2018). Hence, our study advances the HRM literature in the public sector by exploring how personal and social resources enhance POP across government agencies.

This study extends the findings of previous research through two major contributions. First, until now relatively little attention has been dedicated to investigate the relationship of PsyCap and social capital with POP in the public sector context. In the public sector, the question how public servants' resources enhance POP is the subject of considerable pragmatic and empirical debate (van der Kolk et al., 2019). Underscoring this research gap, our first objective is to explore the impact of those two resources on POP in the public sector. Second, this study provides substantive insights into the mediating role of organizational trust and the moderating role of proactive behavior. To our

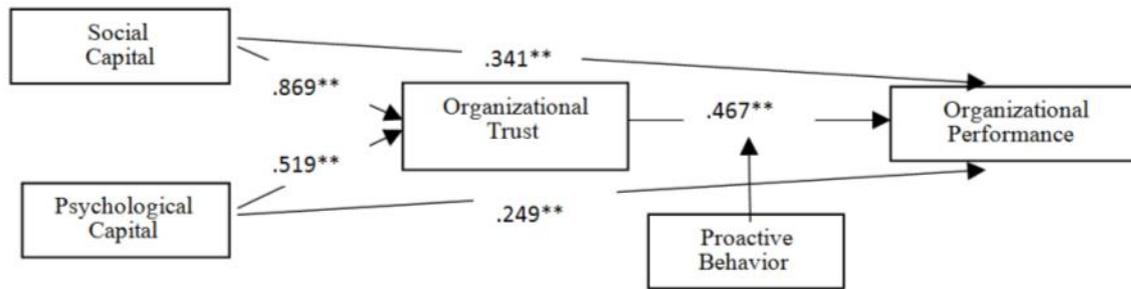
knowledge, no studies have investigated the organizational trust as a mediator between PsyCap, social capital and POP in the public sector. Additionally, we extend our argument by exploring how proactive behavior moderates the relationship between organizational trust and POP.

## METHOD

The survey was conducted among public servants at the managerial level. An online survey was conducted through iPanel which is the largest online panel in Israel. Survey data were collected at two chronological points separated by two months. Pairing the questionnaires between the two waves provided complete data for 298 participants (a total response rate of 54.18%). All the scales were taken from standardized instruments that were found reliable in earlier studies.

## RESULT

The results show that there are positive significant correlations among all the research variables. Collinearity was tested before conducting the regression analysis using variance inflation factors (VIFs). Since the tolerance level was greater than 0.10, we ruled out multicollinearity (Hair et al., 1998). The result suggested that the effect of PsyCap on POP decreased in absolute size (from  $B = .341$ ,  $p < .01$  to  $B = -.065$ ,  $p > .05$ ) when controlling for the effect of organizational trust. Additionally, the results indicate that the effect of social capital on POP decreased in absolute size (from  $B = .249$ ,  $p < .001$  to  $B = .034$ ,  $p > 0.05$ ) when controlling for the effect of organizational trust. Results from the Sobel tests showed that the mediation effect is significant for (Sobel test statistic = 4.52,  $p < .001$ ). We also hypothesized that proactive behavior would moderate the relationship between organizational trust and POP. As found, the overall model was statistically significant,  $F_{(7, 155)} = 7.51$ ,  $p < .001$ ,  $R^2 = .25$ , meaning that the relationship between PsyCap and social capital and POP is mediated by organizational trust and moderated by proactive behavior. The model was able to account for 25 percent of the variance. The significance of the indirect effect was tested using bootstrapping procedures. Unstandardized indirect effects were computed for each of 5,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped unstandardized indirect effect of organizational trust and proactive behavior was .21, and the 95% confidence interval ranged from .10 to .36. This indirect effect was statistically significant.



## DISCUSSION

First, the findings provide valuable knowledge about the way psychological and social resources (Luthans et al., 2018; Hobfoll, 1988) do affect POP. By drawing this relationship, this study advances theory on potential valuable positive psychological resource that may lead also to increase organizational performance and not only individual job performance. According to the COR theory assumption that resources do not exist individually, and personal and social resources must operate in tandem to aid people's efforts in facing life challenges (Hobfoll, 2011a; Hobfoll et al., 2018).

Second, this study also fills a gap about the mediating effect of organizational trust between PsyCap and social capital to POP. Arguably, this study provides substantive insights to Nahapiet and Ghoshal's (1998) argument that resources could be mobilized through the social network so they enable the achievement of certain ends. While there is an expectation of trustworthy behavior and the intention to act based upon it (Huff and Kelley, 2003), it enables public servants to utilize both their personal and social resources for achieving organizational performance.

Finally, one of the original contributions of this study to HRM literature is the introduction of a mediation moderation model in which the strength of a mediating pathway is moderated by another variable (Hayes, 2013; Karazsia et al., 2014). Therefore, we support previous studies which have suggested that integrating mediation and moderation can offer a more complete understanding of a phenomenon than focusing solely on mediation or moderation (Karazsia, et al., 2013; Cafferkey et al., 2019).

*Keywords: Psychological Capital, Social Capital, Organizational Trust, Proactive Behavior, Organizational Performance, Conservation of Resources, Theory*

## THE IMPACT OF GRATITUDE ON THE EMPLOYEE INTENTION TO STAY: THE MEDIATING ROLE OF AFFECTIVE COMMITMENT

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### ABSTRACT

In developed markets, the search for skilled employees is becoming more difficult. Moreover, it is more complicated for the companies to maintain the high level of employee motivation and benevolence, intention to stay with the organization. At the same time, recent research shows that loyal employees work to make the organization flourish (Narteh and Odoom, 2015), whereas employee satisfaction and loyalty can determine customer loyalty (Barzoki and Ghujali, 2013). If the company cares about its employees, the employees will care about the customers, which will in turn increase profitability of the company (Herington *et al.*, 2006).

As a result, researchers are becoming increasingly interested in the poorly analysed relationship between internal marketing and employee loyalty (Narteh and Odoom, 2015). Barzoki and Ghujali (2013) found a significant positive impact of internal marketing on an organizational commitment. Furthermore, the research by Schulz *et al.* (2017) confirmed, that internal marketing is a significant factor predicting affective commitment. Moreover, the improved employee satisfaction through the proper implementation of internal marketing principles can have a positive effect on increasing job satisfaction (Shiu and Yu, 2009; Iliopoulos and Priporas, 2011; Salem, 2013; Chiu *et al.*, 2014), organizational commitment (Barzoki and Ghujali, 2013; Chiu *et al.*, 2014; Schulz *et al.*, 2017), work performance results (Huang and Rundle-Thiele, 2014; Shiu and Yu, 2009), loyalty (Bansal *et al.*, 2001).

There is a growing number of researchers who believe that gratitude can effectively serve as a marketing tool through employee affective commitment (Palmatier *et al.*, 2009; Ragio *et al.*, 2013; Bolton *et al.*, 2004). Bolton *et al.* (2004) argues that marketing tools that encourage employee affective commitment have a direct impact on the duration of the relationship or the intention to stay. The relationship marketing literature increasingly addresses the importance of gratitude as an emotional relationship builder and active internal marketing element (Raggio *et al.*, 2013; Mishra, 2016), a strong factor that can trigger affective employee commitment (Tsang, 2007).

The purpose of this paper is to examine the impact of gratitude on the employee intention to stay when the relationship is mediated by the affective commitment. Following internal marketing tools are considered as the drivers of the employee gratitude: internal communication, employee training, employee salary, intangible benefits.

Online survey and non-probability (convenience) sampling were used for this study, which is based on a survey of 129 respondents from Lithuania.

The study found a significant positive relationship between employee affective commitment and gratitude. Multivariate regression analysis revealed that intangible benefits comparing with other internal marketing tools, specifically internal communication (Conduit and Mavondo, 2001), employee training (Anaza and Rutherford, 2012), employee salary (Anaza and Rutherford, 2012), had the strongest effect on gratitude. The study also found a significant positive relationship between affective commitment and intention to stay within the company. Thus, this study confirms that the emotion of gratitude can serve as an effective marketing tool for internal communication within organizations to maintain employee loyalty through the stay with the organization.

*Keywords: affective commitment, salary, employee satisfaction, employee training, gratitude, intangible benefits, internal communication, loyalty.*

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## REGISTRATION AND PROMOTION OF MONUMENTAL OLIVE TREES IN GREECE

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### **ABSTRACT**

The present study is a part of a wider research on the value of the natural heritage and specially on ancient olives trees as natural monuments and cultural heritage of all Mediterranean regions.

According UNESCO "natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation; natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty".

The main aim of our research is to examine the key position that monumental olive trees and their materialistic and symbolic manifestations consist a natural and cultural heritage as well. In this framework the study focuses on various key issues related to monumental olives trees and their natural, historical, social and cultural value.

Since ancient times, olive trees have been a means of covering various needs of people. Despite the time passing and human intervention, many olive trees have survived. These are the so-called monumental olive trees, which are distinguished for their massive surface, the caverns and their trunk. In our country the monumental olive trees are protected by the P.D. 1971. Various public or private organizations are involved in their promotion and protection. An important role in this direction is played by local communities play an important role towards this direction with their traditions, and with the help of the citizens themselves. Many of them acknowledge the existence of monumental olive trees in their area and realize their importance, so they try to have an active role in their promotion and protection.

An olive tree must meet certain criteria to be considered monumental. These criteria are divided into two major categories, morphological and cultural characteristics. Tsaroucha points out that the classification of a tree has raised strong concerns in the scientific community and local community. It is worth mentioning that the morphological characteristics of an olive tree include the shape and size of the trunk, the olive wood, the formation of its caverns and, finally, its age. The evaluation of an olive tree usually begins by measuring the perimeter of its trunk, which gives it some

cultural texture. In addition, other tangible features play an important role in the evaluation of a tree. The tangible values of olive trees are visible and are usually calculated on the basis of measurable data. Tangible ones include the particular species of olive trees, the size combined with their age, the impressive shape of its trunk and anything else that can attract the attention of an observer. Finally, morphological characteristics may include species rarity and endangered species. Cultural characteristics include all the elements that relate the olive tree to the mythology, tradition, history and religion of a society. These characteristics are not quantifiable, but place the researcher in the broader time frame of the tree's existence, contributing to linking the past with the present and the future. In order to protect monumental olive trees effectively, it is important to understand how people perceive their importance to the local community. This importance lies in their diverse values, namely cultural, symbolic, aesthetic, educational, scientific and spiritual. The benefit of these non-tangible values is that man comes closer to nature. However, some trees carry historical / mythological elements. The final judge, always taken into account for the designation of an olive tree as monumental, is always the olive tree itself and its character. The olive tree and its cultivation since its appearance, 50,000 years ago, are still part of the economic, religious, social, political and cultural life of an area. In the olive groves you meet long-lived olive trees, which can exceed a thousand years. These trees stand out morphologically for their size, their outer and bulky surfaces, their internal caverns and their trunk relief. Many olive trees are also culturally linked to the history, mythology, religion, traditions and culture of the local communities in which they are found.

The protection and promotion of olive trees has proven to be an important pillar for the country's cultural heritage. But research should not stop there. Local communities should be made aware of and understand the importance of the culture of these olive trees to the history and traditions of their land. Initially, the local communities and associations that operate in them should, with the help of interdisciplinary teams of archaeologists, agronomists and philologists, record all olive trees locally and form complete dossiers with all the necessary information for each olive tree. Government agencies should then be interested in and support the inclusion of these olive trees in the list of protected nature monuments.

Finally, the process of registering olive trees in the National Inventory of Intangible Cultural Heritage should begin immediately. The National Inventory aspires to be a valid and up-to-date image of Greece's intangible cultural heritage by offering communities, groups and individuals the opportunity to share their own cultural experiences with local and international audiences, to talk about their collective identity, formulate proposals for the study, and especially for the preservation of their intangible cultural heritage.

*Keywords: Monumental Olive Trees, Nature conservation monuments, Greek monumental Olive Trees.*

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## RETAIL BANKING: CHALLENGES AND EVOLUTIONS IN DIGITAL TRANSFORMATION

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### ABSTRACT

The traditional banking model of the last century was set up around the physical exchange of documents. For centuries, individuals had to visit a brick-and-mortar branch in order to interact with a bank. This enabled banks to have direct contact with their customers and to identify their needs through this contact. With the development of electronic and other forms of commerce (e.g. m-commerce, TV-commerce, 3D-commerce, etc.) consumers come in contact with financial products and services without the need for physical presence. Thus, on the one hand, new space is being created for the development of new banking providers (e.g. FinTech) and on the other hand, the traditional banking structures miss the opportunity of almost exclusive contact with the customer. This advantage of direct contact has passed on to all stakeholders, thus all involved parties need to recognize and respond to the newfangled challenging environment, in order to ensure sustainability and market share retention.

Digital banking through the use of websites and mobile applications (e.g., Monzo, Revolut) is changing the way nowadays banks interact with their customers. The use of digital technology in online media (platforms) provides instantaneous solutions to customers and businesses. In a five-year study (2013-2017) conducted for four major US banks with an international presence (Pramanik *et al.*, 2019), the results show the dynamics of the field and the trends of the past that is current practice: (1) the number of mobile payments exceeds 3 billion every week, (2) a new and award-winning digital (mobile) bank platform attracted 5,500 new users daily, increasing eventually the number of users by 22 million, and (3) a bank of 40 million 'digital' customers has reduced transactions compared to the physical stores by 130 million and increased the electronic transactions by 180 million within two years.

In recent years, large multinational technology-focused companies have penetrated in the online payments sector, and new companies focusing on the provision of financial services are constantly emerging. FinTech already exert pressure both on the traditional banking sector, as well as on regulatory frameworks. In the USA, the legislative framework encourages the establishment of new banking architectures strengthening the continuous change in the development and provision of financial services (Berger, 2003). FinTech through real-time interaction with the customers can better understand their needs and react accordingly due to the simplification of their processes. FinTech has

been "attacking" traditional banks with digital "weapons" by attracting their customers' base. (CapGemini, 2016)

Traditional banks have recently started to develop a digital transformation strategy in order to respond to the changing environment. The adoption of digital technologies within an organization directly affects internal and external processes and services, interactions of the involved parties, reshapes relationships with customers, and the overall value creation approach. However, digital transformation should not always be disruptive (Furr and Shipilov, 2019). Following the theory of value creation, we focus on the new opportunities and perspectives that emerge from the adoption of a digital transformation strategy, with an emphasis on how new technologies transform the relationships of the Banks with the customers and other entities involved.

In sum, the aim of this work-in-progress is to provide an holistic framework that describes all relevant processes and activities that take place in the digital transformation in retail banking, and inform managers in terms of the opportunities, challenges and initiatives that they need to focus on and prioritize. Drawing on literature insights (Jüngera and Mietzner, 2019; Reinartz *et al.*, 2019) and interviews with more than 20 Bank managers that will take place in April-May 2020, we will offer a better understanding on how brick-and-mortar banks need to respond to the recent trends.

*Keywords: digital transformation, retail banking, omni-channel banking*

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# A DISTANT THREAT MADE LOCAL? THE CARRY-OVER EFFECT OF PERCEIVED THREAT FROM ASYLUM SEEKERS IN EUROPE TO ISRAELI LOCAL OUTGROUPS

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## ABSTRACT

The purpose of this study was to identify sources and hidden mechanisms of distant perceived threat creation through content analysis of Israeli media coverage of EU asylum seekers (EUAS) and to investigate the effect of perceived threat on attitudes toward local outgroups: Israeli Palestinians, Non-Israeli Palestinians, and Asylum Seekers in Israel, controlling for face to-face interaction with these groups. The study used mixed methods. Qualitative Study 1 consists of a content analysis of Israeli media coverage of EU asylum seekers. The sample included 213 media items that were broadcasted on Israeli TV programs, printed newspapers, radio broadcasts, online news websites, and social media from 2014-2019. Quantitative Study 2 uses an online survey of 1311 Israeli Jews, to investigate effects of distant threat on attitudes toward local outgroups. The findings of the qualitative analysis indicate mainly negative EUAS coverage in Israeli media. Realistic threat from EUAS was negatively related to positive attitudes toward three local outgroups, while the association between symbolic threat from EUAS and attitudes toward the local outgroups was insignificant. Considering that perceived distant threats are originated predominantly from the coverage of asylum seekers crisis in EU in Israeli media, we conclude that how migrants are described, categorized, and represented makes a difference. The media actively contributes to and constructs our perceptions of EUAS, shaping a society's image of local outgroups and minorities, with vast political and cultural implications. Hence, escalation of the EU asylum seeker crisis may aggravate the Israeli-Palestinian conflict, tightening legislation regarding asylum seekers in Israel.

*Keywords: realistic threat, symbolic threat, carry-over effect of perceived threat, asylum seekers in European Union, media coverage.*

## THE PROCESSES OF CHANGE IN THE MANAGEMENT OF THE BRAZILIAN FEDERAL UNIVERSITY HOSPITALS

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### ABSTRACT

In Brazil, the citizens equal right of access to health care was only explicitly recognized in the Federal Constitution of 1988, with the creation of the Unified Health System (*Sistema Único de Saúde- SUS*) that is the public subsector of the Brazilian health system.

Federal University Hospitals (FUHs) are part of the public health care services (article 45 of Law No. 8.080, of September 19, 1990), are dependent on the Ministry of Education and are funded by the SUS. FUHs provide services to the population, even in high medical complexity situations, and develop teaching and research practices while committed to train health professionals (Portulhak *et al.*, 2017). The complexity of these institutions, along with the need to provide high quality services, ends up making management performance particularly challenging in these organizations.

To face the lack of resources and the growing financial and human resources deficit observed since 1980s, the Ministry of Education, together with the Ministry of Health, created the Federal University Hospitals Restructuring Program (Programa Nacional de Reestruturação dos Hospitais Universitários Federais – REHUF). REHUF was instituted by Decree 7.082, of January 27, 2010 and creates the material and institutional conditions for FUHs, having as guidelines the establishment of appropriate funding mechanisms, the improvement of management processes, the adaptation of the physical structure, the modernization of the technological park, the restructuration of human resources and, the improvement of teaching, research and extension activities, as well as health care.

Additionally, Law 12.550, of December 15 of 2011, created the Brazilian Company of Hospital Services (Empresa Brasileira de Serviços Hospitalares – EBSEH) to manage, on a voluntary basis, university hospitals. EBSEH is a public company of private law that is intended to increase efficiency and improve economic and financial sustainability of FUHs. Therefore, EBSEH provides supporting services to the management process of FUHs that sets performance targets, deadlines and qualitative and quantitative indicators to be achieved. The network of FUHs is comprised of 50 assistance units linked to 35 federal universities, and of these hospitals, 40 chose to sign the management contract with EBSEH (EBSEH, 2020).

The main objective of this study is to analyze the institutional dynamics of FUHs and the implications in accounting that arise from the adoption of REHUF and the creation of the EBSEH, exploring the reasons, actors and processes that have been shaping the performance of these public entities.

This qualitative study follows an interpretative approach and uses the New Institutional Sociology (NIS) as lens. NIS emphasizes that technical motivations and economic rationales do not completely explain why organizations adopt certain practices, highlighting the advisability of organizations adhering to external rules, norms, beliefs, and taken-for-granted assumptions that legitimize and provide an appearance of rationality and efficiency (DiMaggio and Powell, 1983; Scott and Meyer, 1991).

FUHs are open systems that operate in a complex, collective and interconnected environment. In order to survive, these hospitals have to be responsive not only to the internal pressures but also to the external pressures that shape their structure and behavior, which may lead them to become increasingly homogeneous. Also, to analyze the relationship between agency and FUHs, this study follows the developments to NIS provided by the Institutional Work (Lawrence and Suddaby, 2006; Lawrence et al., 2011). Institutional Work examines the “practices of individual and collective actors aimed at creating, maintaining, and disrupting institutions” (Lawrence et al., 2011: 52).

Research design included the collection and analysis of the minutes of the Higher Councils of Universities’ meetings, since the decision of the HUFs to join the EBSEH management had to be taken at those meetings. Once the reasons for adherence and non-adherence by the social actors involved in the process were identified, a multiple case study was developed.

From the FUHs that joined the EBSEH, the Hospital chosen as a case study was the University Hospital of Brasília (HUB) of the University of Brasília, which is considered the EBSEH Pilot. From the 10 hospitals that did not adhere to EBSEH, 3 university hospitals linked to Federal University of Rio de Janeiro (UFRJ) were selected: Institute of Psychiatry of UFRJ (IPUB), School Hospital São Francisco de Assis (HESFA) and Institute of Childcare and Pediatrics Martagão Gesteira (IPPMG).

Besides the minutes of the University Councils, the documental analysis included: consolidated financial statements and explanatory notes of EBSEH; Management Reports of HUB and EBSEH; EBSEH Audit Report; Internal Regulations of EBSEH; the Report on the organizational structure of the HUFs and the basic quantitative of EBSEH employees; and the Report of the Audit Judgment of the Federal Court of Auditors.

Data was also collected through semi-structured interviews in the selected four HUFs and in EBSEH. Sixteen semi-structured interviews were carried out: ten in HUB (an adherent FUH), one in IPUB, two in HESFA and one in IPPMG (three non-adherent FUHs), and two interviews in EBSEH-Headquarters. The interviews were transcribed and the speech of the involved actors was analyzed.

The triangulation of data allowed the analysis to reveal the interaction of different voices that emanate from the organizational context and the institutions.

The results show that a top down strategy has been adopted in the change process; that the process lacked transparency and had contradictory information; that the EBSEH and the Government exerted pressures that lead Universities to join EBSEH and; that the Uniform Administrative Law servers, and other social actors, resisted the process and delayed its implementation. Resistance, however, was not enough to stop the process. Legislation, and recommendations of the Federal Audit Court, exerted institutionalizing pressures on the FUHs. Though, some of the laws had a ceremonial use leading to loose coupling. In addition, it was verified that the management carried out in the FUHs not only reflects the government's search for legitimacy, but also the search of efficiency in the control of public resources. The results also reveal that the changes in the accounting system of the adherent hospitals were very relevant, and that the accounting information of these units, although incomplete, is used as a form of legitimization. Finally, the research has shown that some rules and standards have been instituted in accounting and institutionalized in FUHs. With the implementation of the ERP-Management Application for FUHs, the current practices were discontinued and deinstitutionalization occurred.

This research contributes to the literature on the management change on the public health system, through the study of the Brazilian case. It also deepens the analysis of the creation of EBSEH and the understanding of the behavior of organizational actors in complex institutional environments and their compliance and resistance to institutional pressures.

*Keywords: processes of change; Federal University Hospitals; institutional theory; legitimacy; loose coupling; accounting.*

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## CONTENTS AND DETERMINANTS OF SDG REPORTING: EVIDENCE FROM ITALIAN LISTED COMPANIES

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### ABSTRACT

When the Brundtland Commission proposed the notion of Sustainable Development (SD) in 1987, it aimed to enlarge the vision of development in a more inclusive and durable way. SD imposes that economic development is also concerned with environmental and social aspects such as the quality of natural resources, climate change, and the struggle against poverty. SD regards both political actions as well as individual and organizational behaviors. In this context, the integration of social and environmental goals into the purpose/mission of corporations gave birth to the concept of “triple bottom line” (Elkington, 1997).

The need for a common framework of values (and goals) that steers individual, managerial and political action initially triggered the Millennium Development Goals (MDGs), a political agenda defined by the United Nations Millennium Declaration in 2000. Even though MDGs helped to define the objective of SD thoroughly, they were not capable of involving all countries and organizations in the struggle to effectively modify the economic behaviors of people and corporations (Sachs, 2012). To relaunch the action towards SD, the General Assembly of United Nations adopted a new important resolution on 25 September 2015, by means of which it proposed the so-called Sustainable Development Goals (SDGs), a new common framework defined to enforce the efforts to improve the development models adopted by people and corporations. The SDGs explicitly adopt the triple-bottom-line and concern the social, environmental, and economic aspects of development, implementing a unitary view of this concept. The 2030 Agenda for SD states 17 sustainable development goals, that includes 169 targets, and aims to stimulate global action for the next years.

SDGs engage individuals, organizations, and governments in a common struggle, and they potentially involve all human activities. Consequently, corporations can be protagonists of SD by integrating SDGs into their strategies and business models. Nonetheless, the adoption of SDGs is entirely voluntary. In this framework, many issues arise regarding the motivations for adoption, the alignment between SDG-contribution and business strategy, and the SDGs reporting practices.

Academic attention towards the corporate involvement of the SDGs has been growing during the last years. Several studies (Scheyvens, Banks and Hughes, 2016; Kolk, Kourula and Pisani, 2017; Muff, Kapalka and Dyllick, 2017; Bebbington and Unerman, 2018; van Zanten and van Tulder, 2018; Rosati

and Faria, 2019a, 2019b; Williams, Whiteman and Parker, 2019; Schönherr and Martinuzzi, 2020; Tsalis et al., 2020) address the relationships between the adoption of the SDGs in corporate reporting practices worldwide. Empirical evidence identifies many types of determinants of SDG reporting. On the one hand, empirical evidence shows that at the organizational level variables as, company size, internationality, intangibility, voluntary commitment to sustainability disclosure frameworks, external assurance of reporting practices, and board composition variables are determinants of SDGs reporting (van Zanten and van Tulder, 2018; Rosati and Faria, 2019b). On the other hand, the institutional frameworks in which the companies operate also determine SDGs reporting. Variables identified at the institutional level are the levels of climate change vulnerability of the country in which the companies operate, the national corporate social responsibility frameworks, the levels of indulgence and individualism, the levels of market coordination, employment protection frameworks, power distance and long-term orientation (Rosati and Faria, 2019a). There are some determinants related to the nature of the SDGs addressed by companies; for example, internally actionable SDG targets are more attractive for company engagement than externally actionable SDG targets. In the same way, SDGs that avoid negative impacts on sustainable development are preferred as SDGs that require a proactive “doing good” approach (van Zanten and van Tulder, 2018). Finally, very intriguing evidence provided by Williams and colleagues (2019) shows that inter-organizational dynamics play an essential role at the individual level as antecedents of companies’ endorsement of the SDGs.

In the case of Italy, the study of Venturelli and colleagues (2019), provides the first and only empirical evidence available regarding the corporate SDG Reporting, consequently to enrich the discussion and to enlarge the empirical evidence, the present research aims to understand the contribution of corporations to SD, by analyzing the declaration of commitments to SDGs and related politics into sustainability reports. To that aim, we perform a qualitative content analysis of 173 stand-alone sustainability reports published by companies Listed in the Italian Stock Exchange in Milan in the years 2016 (N=56) and 2017 (N=117). Our findings show an increment in SDG Reporting from 2016 to 2017, and this can be partially attributed to the Italian implementation of the EU Directive on non-financial disclosure and diversity. Additionally, our results show that in 2016, 21 companies reported about SDGs (37.5% of the sample), while in 2017, there was a reference to SDGs in 40 reports (34.2% of the sample). About 67% of corporations also reported some specific aims about their specific contribution to SD, while the others only cited a generic commitment. The SDGs 7, 8, 9, and 13 are the SDGs more addressed by companies in their sustainability reports substantially confirming the outcomes of van Zanten and van Tulder (2018) that the SDGs mostly addressed by companies are those that include internally actionable targets. Furthermore, the study tests the role that critical economic, financial, and governance variables (such as size, profitability, and gender diversity in the board of directors) in SDGs

reporting and finds that the company size, measured according to the total assets of the company or the number of employees, can be considered a significant determinant of SDGs reporting in Italy.

*Keywords: sustainable development goals; sustainability reporting; corporate social responsibility; SDGs reporting*

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# MARKETING STRATEGIES AND HUMAN CAPITAL FLOW THROUGH CITIES: A THEMATIC ANALYSIS AND DIRECTIONS FOR DEVELOPING THE FIELD

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## ABSTRACT

During the last decade, the role of human capital and knowledge flow on city development has increased the attention of researchers and institutions. The focus is on the role played by knowledge inputs, knowledge generation, and knowledge spillovers in local innovation processes (Faggian and Mccann, 2009; Lee, Florida and Gates, 2010). Toward this direction, the effect of the internet and social media as a driver of internationalization plays a key role (Bhimani, Mention and Barlatier, 2019; Shawky *et al.*, 2019).

Growing through the development of digital and new communication technologies represents a fundamental channel in terms of economic growth (Lamberton and Stephen, 2016). This expansion is also reflected in cities that become increasingly dependent on digital innovations (Tan and Taeihagh, 2020), and competitive in terms of social policies (Sima *et al.*, 2020). Attracting and acquiring new knowledge has become essential in the city's innovation and technological development policies (Christofi *et al.*, 2019; Vrontis and Christofi, 2019). The theme of the attractiveness of the city, therefore, plays a key role in its technological and economic development. Several studies evaluated the role of city attractiveness in terms of innovation (Snieska and Zykiene, 2015) and national and international students' mobility (Siekierski *et al.*, 2018; Roy *et al.*, 2019). However, the role of marketing strategies in terms of human capital attraction is still not clear in terms of a) governing communication (Cocchia, 2014; Meijer and Bolívar, 2016), and b) with regards to the impact of new digital technologies on communication itself (Leonardi, 2014).

The purpose of the article is to provide a holistic understanding of the role played by city marketing strategies on human capital and knowledge inbound flow as a driver of innovation and economic development. Hence, the guiding research question of this systematic review is: "what marketing strategies do cities use in order to attract human capital and develop new knowledge for the city itself?". Based on this, the objectives of this paper are the following: to (i) conduct a systematic review and critical analysis of extant research so as to offer a better understanding of the phenomenon and a clear picture of the various marketing strategies used by cities; (ii) provide research-based guidelines

on the topic for policy makers, practitioners and, academics, and; (iv) develop an agenda for further enquiry in order for the domain to further evolve.

*Keywords: Digital Marketing, Marketing Strategies, Human Capital, City attractiveness, Students Mobility, Knowledge Spillover.*

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## ICT AND MICRO FIRMS IN EXTRA VIRGIN OLIVE OIL SECTOR

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### ABSTRACT

#### 1. INTRODUCTION

Especially for local, traditional, small enterprises the opportunities for growth offered by the internationalization are increasingly important (Dominguez and Mayrhofer, 2017). The digitalization of their business is an essential part of this process (Westerlund, 2020). Nowadays, the spread of internet connection and integration strategies through Information and Communication Technology (ICT) has permitted to overcome geographical barriers and to improve both businesses and marketing strategies (Scuderi *et al.*, 2015). They also present advantages in terms of reduction of coordination costs (Martino, *et al.*, 2017; Chen *et al.*, 2017). Several studies have analysed the impact of ICTs on the Italian agri-food sector in terms of marketing benefits, use of e-commerce, and social media actions (Sturiale and Scuderi, 2013a; 2013b; Petino and Rizzo, 2003). The current study tries to evaluate the adoption of ICTs for small enterprises (10 employees or less) in the Extra Virgin Olive Oil (EVOO) sector. The small local productions have an important role in the social, cultural, and economic sustainability of rural areas (Galli and Brunori, 2013; Menozzi, 2014). Especially for them, both quality perception and communication are very important to increase the value of their product. Although it is usually done through certifications (Marchini and Riganelli, 2015; Di Vita *et al.*, 2013), the use of Information and Communication Technologies (ICT) enables an easier sharing of information, both within the supply chain and towards the consumer, and encourages internationalization (Violino *et al.*, 2019; Scuderi *et al.*, 2015). The geographical barriers, due to the rural localization and the challenges imposed by the reduced dimensions, could be overcome through these technologies (Westerlund, 2020; Sturiale and Scuderi, 2013b; Scuderi *et al.*, 2015). Therefore, to study the characteristics which could influence the level of digitalization of this type of firms through time, could be important, from both the managerial and the political point of view.

#### 2. DATA AND METHODOLOGY

The following research question was formulated:

- (a) *What are the variables which, through time, have an impact on the adoption of Information and Communication Technologies for Extra Virgin Olive Oil small firms?*

Taking into account the small dimension of the firms and the very low level of digitalization, the only proxies for the ICT adoption are the presence of an e-commerce channel and social networks (Facebook). Due to the fact that fast net is important in both technologies, the variables which affect its implementation were also analysed. The dependent variables were selected among those used by ISTAT in their questionnaire to evaluate the ICT level in firms (<https://www.istat.it/it/archivio/236526>). The data was obtained by matching the information from the database Orbis BureauVan Dijk with that from telephonic interviews made in Italy in April 2020. The firms were selected based on their activity code (ATECO: 10.4.1 and 10.4.2) and the number of employees (10 or less) with active status. The dataset from Orbis for the years 2016, 2017 and 2018 was composed from 107 firms. The final sample after the calls was composed by 100 firms in Italy. The interviewees were asked for the presence of an e-commerce channel, the year of implementation, and the geographical distribution of the sales. The interviewees were also asked for the presence of fast or ultra-fast internet connection (30 Mbps or higher) and, if present, since which year. Some questions about the social networks activity of the firms were done. After a qualitative analysis, the data was analysed with a Generalized Linear Mixed Model (GLMM) using the software R.

### 3. RESULTS AND CONCLUSIONS

The results of the analysis are presented in table 1:

The three models chosen are those that minimize the Akaike information criterion (AIC), but the selection was confirmed by using the likelihood ratio test (Burnham and Anderson, 2002; Bolker, *et al.*, 2009).

For what may concern e-commerce, the fixed effects show that firms which have a certification are expected to have increased odds of having an e-commerce channel. This confirms what can be seen from the literature: certifications are one of the first tools used to communicate quality. The firms which, over the three years considered, have used social networks to spread and gather information are also expected to have increased odds of having an e-commerce channel. Furthermore, from the qualitative analysis can be seen that the use of social networks is positively related with the implementation over the three years of this technology. This is important in relation with the previous studies, which found that the web site was mostly used for the image rather than for sales. Therefore, the current results seem to go in a different way: over the years the representative role was shifted towards the social networks. For what may concern the implementation of a fast net, it influences positively the implementation of the e-commerce channel. Furthermore, the control variable for the technological level (presence of a server) is significant too. The analysis on the social networks shows that variables which are expected to increase the odds of implementing them are certification and fast

net. From the data, fast net is a common important factor. Therefore, a regression on this variable was performed, in order to evaluate which variables could be significant in its implementation. As expected, the geographical variable is rather important, where the coefficients are all negative, and significant for centre Italy. This is important, because the coverage is not homogeneous for the Italian territory and still a work in progress.

Table 1 – Variables which have an effect on the implementation of ICTs

| Variables      | E-commerce        | Social           | Fast net          |
|----------------|-------------------|------------------|-------------------|
|                | Fixed Effects     |                  |                   |
| SALES          | -0.02**<br>[0.01] | 0.09<br>[0.01]   |                   |
| EMPLOYEES      |                   |                  | 0.02<br>[0.06]    |
| CERTIFICATIONS | 5.09***<br>[1.66] | 8.10**<br>[3.43] |                   |
| FAST NET       | 2.66***<br>[0.99] | 2.97**<br>[1.27] |                   |
| SERVER         | 3.80**<br>[1.7]   | 0.92<br>[2.06]   | -0.85<br>[0.58]   |
| BACKUP         |                   |                  | 1.46**<br>[0.66]  |
| SOCIAL_INFO    | 4.31***<br>[1.65] |                  |                   |
| CENTRE         |                   |                  | -1.42**<br>[0.70] |
| SOUTH          |                   |                  | -0.49<br>[0.48]   |
| ISLANDS        |                   |                  | -0.42<br>[0.66]   |
|                | Random Effects    |                  |                   |
| SD             | 5.8               | 8.9              | 1.08              |
| NUMBER OF OBS. | 300               | 300              | 300               |
| NUMBER OF SUBJ | 100               | 100              | 100               |
| AIC            | 232               | 242              | 353               |
| BIC            | 258               | 264              | 383               |

\*\*\* p<0.01, \*\* p<0.05, \*p<0.10. There are robust standard errors in brackets.

From the managerial point of view, firms with high quality products (certified) have greater probabilities of have implemented ICTs between 2016 and 2018. The implementation of digital means is one of the most important factors to help the internationalization of the traditional, high quality, small business (Westerlund, 2020), and it is especially true for agricultural enterprises (Scuderi et al., 2015; Sturiale and Scuderi, 2013b). From the political point of view, ICTs technologies are even more important if the new objectives of the Common Agriculture Policy are considered. The use of these technologies will be important to reduce bureaucracy, and to make the operations easier and more transparent, given also the current Pandemic scenario. Therefore, the implementation among small traditional enterprises could be necessary in the next future. The location of these firms is a boundary, because they are usually located in places which cannot be easily reached. The policies should be aimed to resolve this problem to improve the digitalization of these firms.

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*Keywords: EVOO, ICT, GLMM, marketing strategies, Food SME*

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## THEORETICAL FOUNDATIONS OF REEVES MODEL

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### ABSTRACT

#### PURPOSE OF THE RESEARCH

This research intent to analyse the importance of Reeves, Haanaes and Sinha (2015) model, and the coherence of theoretical support. This exploratory study is an insight through literature-based investigation to develop a general review about the main contributions to this new model to choose the right approach to strategy.

#### THEORETICAL BACKGROUND

Reeves et al. (2015: 5) propose a new model in order to help “leaders match their approach to strategy to the circumstances at hand and execute it effectively, to combine different approaches to cope with multiple or changing environments”. In this sequence, this methodological proposal understands that the environment conditions the choice of the appropriate strategic posture. For Reeves et al. (2015) the competitive environment is conditioned by its unpredictability, malleability and severity (harshness). It is as a result of these dimensions that different approaches to strategy are proposed. Thus, for predictable and difficult to model environments, a classic positioning approach is proposed, by obtaining dimension, differentiation or the development of distinctive resources and capabilities (classic) (Wernerfeldt, 1984; Barney, 1991; Peteraf, 1993; Porter, 1980). In unpredictable and difficult-to-model environments, an adaptive posture is desirable through continuous experimentation (adaptive) (Schumpeter, 1934; Jacobson, 1992; Levinthal, 1992; Kirzner, 1997; Sull, 2009; McGrath, 2013). On the other hand, when there is the possibility of modeling the environment, and the environment is predictable, a visionary approach, based on the creation of new markets, or on their disruption (visionary) is advisable (Hamel, 1996; Kim and Mauborgne, 2005) . As a penultimate possibility, when there is great unpredictability and the environment is malleable, a modeling approach through collaborative relationships (shaping) is suggested (Palmar et al. 2010; Bradenburger and Nalebuff, 2002; Hagel III et al., 2008).

## CONCLUSIONS, CONTRIBUTIONS AND LIMITATIONS

Some of the main conclusions and contributions can be summed up in the importance of defining different approach models to strategy depending on the competitive environment and the business life cycle (Beinhocker, 1997; Harrington, 2005; Bingham et al., 2011). Second, the finding that the competitive advantage will become predominantly temporary, distancing the author from classical conceptions and theories (IO / RBV). Finally, the need for “internal fit” for each different approach to strategy is confirmed (Miller, 1992; Porter, 1996; Siggelkow, 2002). The limitations of the model focus on the choice of the two central concepts that condition the correct approach to strategy - unpredictability and malleability. This model departing theoretically and conceptually from previous developments, such as those proposed by Harrington (2005), Bingham et al. (2011) or Bryant (2011), faces gaps that require further complements.

*Keywords: Strategy, environment, strategic logics, unpredictability, malleability.*

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## WHAT WE KNOW AND WHAT WE SHOULD KNOW ABOUT STAKEHOLDERS' INVOLVEMENT FOR SUSTAINABLE INNOVATION

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### ABSTRACT

#### SETTING THE SCENE AND STATING THE PROBLEM

“Sustainability is becoming a driving force of economies and societies” (EU, 2019). Correspondingly, scholars have recognized sustainability as a central theme both from an intellectual perspective and a practitioners' viewpoint (Lüdeke-Freund, 2010).

Introducing sustainability in the business world implies considering it as a multi-level concept (Figge *et al.*, 2002) in which each level is co-determined with others. Actually, it encompasses sustainability from a shareholder' perspective (i.e., a focus on market value). Moreover, it takes into consideration the primary stakeholders' perspective that want to satisfy their expectations in long run. Furthermore, it calls attention to well-being and the planetary system. Definitively, it is crucial to identify mechanisms and contexts through which sustainability affects the business world and, more generally, society (George *et al.*, 2016).

Prior literature shows that, frequently, the quest for sustainability requires firms' interactions and combination, and recombination of resources among multiple actors, such as suppliers, customers, higher education institutions, research organizations, and others (Dagnino *et al.*, 2015). Then, each firm acts as a “change agent” by orchestrating diverse resources and knowledge toward an articulated problem (Ferraro *et al.*, 2015; George *et al.*, 2016). We are introducing, *de facto*, the *helix innovation model* (involving business, university, government) by stressing the centrality of firms in igniting the processes for sustainable innovation.

In the past decade, scholars have conceptualized an advancement of the Triple Helix innovation, i.e., the *quadruple helix model*, by adding civil society into the list of knowledge actors (Carayannis *et al.*, 2012). This more advanced version of triple helix leverages knowledge dispersed among stakeholders, fostering high degrees of democracy in knowledge exchange and innovation, and changes in power relations in this context (Jensen and Sandström, 2011). Recently, scholars updated also the quadruple helix model by including ecological content in the helix model. The new model is labeled the *quintuple helix model* (Carayannis *et al.*, 2012). The latest model represents an advancement of the preexisting quadruple helix framework as they include multiple groups of stakeholders and civil society among

the actors considered. It highlights the role of stakeholders' involvement, in terms of co-creation and responsibility, in promoting and implementing sustainable innovation.

Overall, an extant literature acknowledges that the quest for sustainability is a key driver of the quintuple helix model and, accordingly, we can find a *copious* research on firm's dialogue with stakeholders for facilitating sustainable innovation (Ayuso *et al.*, 2006). Nonetheless, such literature is *fragmented* in linking and mapping diverse norms and "glocal" actions, and to fill in an existing governance and participation gap, that allows to leverage diverse expertise and decentralized flexible structures (Bäckstrand, 2006).

## AIM OF THE RESEARCH

The purpose of this paper is to summarize the existing knowledge on the role of stakeholders' involvement in promoting and implementing sustainable innovation. The initial outcomes of this paper is to identify main cooperation objectives and stakeholders' involvement, in order to develop a framework of dynamic sustainable innovation practices. Then, we can structure a platform for future research and distill managerial implications.

## METHODOLOGY

This paper offers a systematic literature review. We collect papers available on SCOPUS database. Specifically, our research is updated at 28 of February, 2020. We select papers on the basis of the following steps. First, we search in title, abstract and key words the following strings: ("sustainable innovat\*") or ("innovat\*" and "triple bottom line") or ("innovat\*" and "hybrid organi\*") or ("innovat\*" and "hybrid corporation") or ("innovat\*" and "quadruple bottom line") or ("innovat\*" and "quintuple bottom line") or ("innovat\*" and "stakeholder\*"). Second, since Scopus includes papers published from the year 1966 and our research focus (i.e., "innovations related to sustainability") is a fairly new topic in management (Cillo *et al.*, 2019), a right truncation is not applied, a left truncation is included – the year 2019. Third, we apply the following limitations: (1) Subject Area: Business, Management and Accounting; (2) Language: English; (3) Document type: Article, (4) Source type: Journal, (5) Publication stage: Final. Fourth, we restrict our analysis to articles published in journals with at least 3 starts of the AJG 2018. The overall outcome is 361 articles. Fifth, we read all abstracts with the goal to select only the papers that contribute to understand the role of stakeholders in sustainable innovation processes. At this point, we perform the analysis of our data base by identifying for each paper: year, authors, journal, conceptual perspective(s), definition of innovation, definition of sustainability, definition of stakeholders' involvement, method, sample, findings.

## EXPECTED CONTRIBUTION

This paper offers a map of stakeholders' cooperation objectives and involvement practices for sustainable innovation. Then, our first contribution is to link different research to connect copious and fragmented literature. Second, we propose future map for investigation on sustainable innovation by involving stakeholders. Third, we develop a set of implications about how firms can leverage on stakeholders' involvement to promote sustainable innovation.

*Keywords: sustainability, stakeholders, sustainable innovation, systematic literature review.*

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## INFLUENCE OF AFFECTIVE EMOTIONS ON VIRTUAL TEAMS

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### ABSTRACT

The main objective of this study is to advance research on how emotions affect virtual team over time and its impact on performance. We use quantitative data to explore the patterns of emotional behavior over an extended period of time. Despite how emotions evolve over time in virtual teams has been studied in the past, but utilizing qualitative data with the inevitable consequences in reliability. While the majority of the field studies have been conducted using student's team working on short term-task. This study provides an opportunity to evaluate virtual teams working in a business project through large data of interactions and performance. We expect to demonstrate that the level of emotions varies over time according to work-related stimulus and that the high level of emotion will drive to a high level of virtual team performance. Our findings demonstrate the dynamic between team affective events and their final performance are correlated and looking deeper into the results we will be able to demonstrate more nuanced relationships between the variables.

*Keywords: virtual teams, diverse international contexts, work attitudes/behaviors, team performance, affective emotions, collaboration*

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## ENTREPRENEURIAL OPPORTUNITY FOR THE POST-COVID19 WORLD

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### ABSTRACT

Challenged by the Coronavirus pandemic and its economic fallout many businesses large and small are struggling to keep their doors open for business. Even with the new law, the CARES Act, which provided \$376 billion in relief for American workers and small businesses the impact on small companies is already beyond their capacity to keep the door open. Even the government's support package is no match for a lack of customers. Besides the promise which the CARES Act and Paycheck Protection Program offered banks run out of the money available through the legislation by April 16th<sup>1</sup>, therefore, leaving many stranded to deal with the economic slow down on their own.

The challenges to small businesses are tremendous even under normal circumstances (Fitchen, 2019). The problem is precipitated by the fact that the majority of small businesses are basically income replacing activities for their founders. Most of the small businesses generate just enough profit to scratch the living but do not allow to build a solid "rainy day" fund. Also, the majority of small businesses require its operators to be out and about having the doors open or go to meet with their clients and job sites which is frequently impossible in the COVID-19 pandemic time.

Individual states and agglomerations within them are affected quite differently by the pandemic. Globally we see the same picture and we can go over many reasons why both developed and developing countries are so strongly affected (Stiglitz, 2010) by this virus. With the global economic slowdown upon us, we need to draw the lessons on how small businesses can return to their operations. The entrepreneurial spirit is alive and well, however, the entrepreneurs need to reframe their strategies on how they will start anew.

### NEW OPPORTUNITIES AHEAD

Indeed this pandemic will cause many businesses to fold. On the other hand, as things will improve there will be many more rising opportunities ahead. Those that manage to cease this challenging time and make something new of it will succeed. Current thinking, however, will not help the business as usual to persevere. The new thinking, ability to spot new opportunities, and pursuing these opportunities will enable the success of many. Bootstrapping is important here for most companies large and small the restart will be slow.

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<sup>1</sup> Source: <https://www.bizjournals.com/washington/news/2020/04/16/sbas-349b-paycheck-protection-program-officially.html>

No one should think of returning to business as usual, people should put their thinking hats on and think as if each and every day is a new opportunity and how not to become complacent. I want to recommend a few steps here on how entrepreneurs should view the new post-COVID-19 business world:

1. Forget what worked well before, challenge every idea
2. Open yourself to new ways, new opportunities, do not try to revive what was and is gone
3. Think of how to bootstrap your business
4. Identify business opportunities that will arise. They are here already and will continue to develop, keep your eyes and ears wide open
5. Think of diversifying your offerings
6. Plan ahead on how will you respond to new challenges
7. Train yourself and your people to try new things and new ways
8. As soon as possible, set up a rainy day, week, month, even a year fund
9. Do not settle into a new routine

One of the many lessons that this pandemic provides is that we can not think of returning to the old ways. We need to develop better habits to survive this type of downturn and succeed in the future. To be successful in the downturn times each business needs to have its rainy day fund as the present scenario proves that relying on government aid is not adequate, not timely, and often not sufficient. Every small business must have a bootstrapping plan not only for the start-up stage but also for the economic downturn, and the recovery stages as well. The question, how to operate the business sustainably, so it can function in every economic climate, should be on the minds of each entrepreneur.

In general, no old or new theory of entrepreneurship can provide answers to make things go away or happen (Dobbs and Hamilton, 2007). Disciplined planning and execution combined with ingenuity can have a tremendous impact on the future of small businesses, our communities, cities, states, and the country. It can also impact the global economy as no business today can operate in its own “back yard” we need supplies, services, and raw materials that come from many places around the world.

This situation although terrible for many will be an opportunity for many recovering and new entrepreneurs as well. Assessing one’s skills and strengths and deploying them strategically will be important here. This is a time when I can confidently paraphrase one of my favorite economists, Joseph Schumpeter who wrote of the process of creative destruction which is taking place now. In his view, the available resources should be used by those who can utilize them most efficiently. We need every efficiency we can find now and leverage it to our own and collective good.

In the past weeks, we have seen failures of governments around the world to proactively provide necessary medical and personal protective equipment and instead botch even the basic guidance to its citizens on how to protect ourselves. More encouragingly we have seen the ingenuity of individuals in their homes making protective gear, ventilators, and disinfectants often even giving it away for free. That is the American spirit which I am sure will allow us to rise from the ashes of this pandemic and rebuild our communities and our economy.

A black swan event is some type of extreme which is hard to anticipate. But one who has a good understanding of global complexity should be able to observe the early signs of the approaching black swan event. Finally when the rare event takes place thinking of the unknowable, relying on experts, can be the only way forward. Today as the government debates another round of financial stimulus entrepreneurs and accidental entrepreneurs, those that were thrown into this economic climate have plenty of opportunities ahead of them. They just need to be able to see around the corner, spot the need that businesses and customers have. It is not going to be the world as usual but those who test and implement their new ideas may reach for the stars. Looking at this black swan event and the reshuffle that it caused we will be able to spot the new stars of a small business growing large again in hopefully a not so distant future.

*Keywords: Entrepreneurship, Small-business, Pandemic, New thinking, Economic recovery, Bootstrapping*

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## CORPORATE GOVERNANCE AND RISK MANAGEMENT: THE CASE OF THE PORTUGUESE BANKING INDUSTRY

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### ABSTRACT

This study assesses the effectiveness of corporate governance mechanisms to control bank risk taking in the Portuguese market. Due to the opacity and complexity of the banking sector, corporate governance practices are extremely important to monitor the behavior of managers, and characteristics such as the shareholder's structure, composition, size and leadership of the board of directors, as well as the external auditor, are critical issues to the stability of the financial system in Portugal. To analyze the explanatory value of these corporate governance factors in bank risk taking, semiannual data from a panel of banks were used, in the period between 2009 and 2018.

In general terms, the results suggest that good corporate governance practices maintain a negative relationship with risk taking by banking entities operating in the Portuguese market. Evidence shows that higher levels of corporate governance, as measured by an aggregate index, are associated with lower levels of risk.

Regarding the tests performed on the corporate governance individual components, the results were consistent in some cases (size of the Board, existence of managing shareholders, foreign shareholders and external auditor), characterized by lower risk policies, while in other cases (accumulation of Chairman and CEO functions and independent directors) they were inconclusive. In this regard, the relationship of these characteristics with the risk management of Portuguese banks is still ambiguous.

The complementary objective of testing a relationship between corporate governance and banking performance revealed that the negative association between banking risk and corporate governance ultimately contributes to the improvement of bank performance.

*Keywords: Corporate Governance, Risks, Risk Management, Performance*

## **FARMER PRODUCER COMPANIES THROUGH THE LENS OF RATIONAL, NATURAL AND OPEN SYSTEMS**

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### **ABSTRACT**

#### **CONTEXT OF THE STUDY**

Producer organizations are of critical significance to bring economic benefits to the farmers. In India, the traditional form of producer organization (cooperative) indeed showed success, but it was limited to the dairy sector that, too, in some western states of India. Different studies raised issues pertinent to failed "Cooperative movement in India." Based on the recommendation of the "Alagh committee report" submitted in the year 2000, Producer Company (PC) as a new legal form was introduced in 2003 by an amendment in the Companies Act. This amendment was done with intent to address the lacunae by professionalizing producer organization and increasing producer's advantage through collective participation in emerging market economies. Producer Company, as a legal firm, is expected to combine efficiency and professional management of the company form along with the cooperative principles necessitating ownership and participation of and governance by producers.

#### **THE OBJECTIVE OF THE PAPER**

FPC (Farmer Producer Company) as a form of organization is unique because of its structure. This paper explores this new structure of organization for its effectiveness by using criteria from three different models: the rational system model, the natural system model, and the open system model.

#### **METHODOLOGICAL AND CONCEPTUAL APPROACH ADOPTED**

An empirical investigation, adopting qualitative methodology, is carried out to understand the Structure & processes of FPCs. The study sample includes two FPCs selected on specific criteria such as the age of incorporation, business domain. A semi-structured interview was conducted with members, board members, and functionaries of the FPOs; some secondary data was gathered in the form of balance sheets and other archival records.

## CONTRIBUTION

The study elaborates on the structure and process of FPCs for its uniqueness. It also brings in the different dimensions to be taken care of while analyzing FPCs for its effectiveness.

## KEY FINDINGS

This paper identifies measures of effectiveness that can be used as a criterion while analyzing the organizational effectiveness of FPCs. The finding suggests that it is essential for an FPC to analyze its member institution's strength while analyzing FPC for its performance. The role of different stakeholders in the structure and different processes are found critical. Paper also talks about problems and tensions that arise to achieve the competing logics of the Institution.

*Keywords:* Farmer producer companies, organizational effectiveness, case study, Qualitative method.

# VALUE CREATION IN COLLABORATIONS WITH PRIMARY AND SECONDARY STAKEHOLDERS: THE ROLE OF STAKEHOLDER INTERESTS AND POWER

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## ABSTRACT

Given the benefits of inter-organizational stakeholder collaborations, existing studies on inter-organizational relationships have predominantly geared towards the bright sides of such engagements and demonstrated a narrow focus on the challenges of collaborating with various stakeholders. Though relatively fewer scholars argue that collaborations with stakeholders may not always be beneficial for a focal organization (Fang et al., 2011; Noordhoff et al., 2011; Villena et al., 2011), there is still no consensus on why such collaborations succeed or fail. Recently, the studies in the area have called for research that considers different attributes, motives and interests of collaborating stakeholders to make more accurate inferences about the outcomes of stakeholder collaborations (Ozdemir et al., 2017; 19). Against this background, drawing on the stakeholder and resource dependency theories, the initial aim of this study is to understand how diverse types of stakeholder collaborations, including collaborations with primary stakeholders operating within the supply chain and secondary stakeholders operate outside the supply chain, create different types of value (i.e. market- and non-market based) through their effects on value creation for internal customers (i.e. creation of new employment opportunities) and external customers (i.e. creation of new products, processes and eco-innovations). The second objective of this study is to understand to what extent and how a focal organization's resource based power advantages motivate diverse types of stakeholders (i.e. primary and secondary stakeholders) to invest in resources for the creation of value in collaborative new product development engagements. Based on the 5,461 company data from the Spanish Technological Innovation Panel (PITEC) for the period between 2011 and 2013, OLS Regression models were used to test the hypotheses of the study. In line with the hypotheses, the findings show that collaborations with secondary stakeholders including universities and research centres, which operate outside the supply chain and thus are predominantly driven by non-market interests, generate greater influence on non-market based value creation for internal customers

through improved employment opportunities and external customers through increased eco-innovations. Likewise, consistent with the expectations, primary stakeholders, which operate within the supply chain and thus are driven mainly by market based interests, have been influential in enhancing the process innovation for gaining commercial returns. As opposed to our expectations, on the other hand, universities and research centres as the secondary stakeholders with primarily non-market based interests have been more influential in the creation of product innovations that are driven mainly by commercial returns. Interestingly, our results show that when a focal partner organisation has resource based power advantages by accessing to broad range of diversified stakeholder information sources, they could attain greater support from primary stakeholders for the creation of both market- and non-market-based value. The findings highlight that resource based power advantages are effective only for incentivizing primary stakeholders to make resource investments in a collaborative engagement for value creation.

*Keywords: Stakeholder Theory; Resource Based View; New Product Development; Value Creation; Power.*

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## A CROSS-CULTURAL STUDY ON EXPECTATION GAPS AND NEGATIVE DECISION OUTCOMES IN INTER-ORGANIZATIONAL RELATIONSHIPS: THE ROLE OF POWER AND RELATIONAL EMBEDDEDNESS

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### ABSTRACT

Inter-organizational relationships are credited with offering benefits to participating organizations, and such value-adding partnerships often account for enhanced levels of organizational performance. Importantly, “business actors are dependent not only on one another but also on a broader contextual setting specific to each company and on temporal reality” (Halinen & Törnroos, 1998, p.188). As a result, sudden and revolutionary changes punctuate these periods of relative stability, i.e. instances when the contractual or non-contractual agreements of the relationship may need to be reconsidered. This fluidity of the external environment implies that there is no inherent prescription for a stable, ideal type of inter-organizational relationship. The empirical studies in inter-organizational relationships, however, predominantly view and examine relationships between organizations at the static level, based on a time specific design, and thus overlooking the evolving nature and state of such relationships. Most studies focus either on the role of expectations (e.g. Celuch et al., 2006) or realizations (e.g. Chung et al., 2016) in an organization’s decision of its inter-organizational relationships. Thus, we respond to the call for research on internal and external circumstances that drive changes in inter-organizational relationships in a cross-cultural context (Choi et al., 2019; Jap & Anderson, 2007; Zhou et al., 2015) and contribute to studies which highlight the need for organizations to adjust the nature of their inter-organizational relationships to an evolving reality (Reuer, Zollo, & Singh, 2002; Hite & Hesterly, 2001; Fleming et al., 2016). Without denying the bright side of inter-organizational relationships, this study sheds light on inter-organizational formations that become detrimental to a focal organization’s relational outcomes, thus disrupting its ‘smooth’ relationship life-cycle. Inter-organizational relationships that generate such outcomes are examined through different types of expectations gaps, associated contextual contingencies (i.e. relational embeddedness and power – dependence relations) and organization-level decision responses to these gaps. In particular, the study aims to investigate the following research questions: What are the expectations gaps? How do they develop in an inter-organizational relationship context? How do

organizations respond to them? What contextual contingencies affect these responses? These questions are addressed through a case-based design of seventeen inter-organizational relationship configurations from Chinese and Turkish textile organizations. Case studies lend themselves to a life-cycle 'story' that accounts for the negative aspects of such relationships. We caution about the negative aspects of seemingly harmonious inter-organizational relationships, while fleshing out factors that may enable their emergence. Our results show the emergence of various expectation gaps leads to diverse relational outcomes, which does not necessarily include inter-organizational relationship termination. Furthermore, our study evidences that how expectation gaps detriment inter-organizational relationships depend on power and relational embeddedness between the collaborating organizations.

*Keywords: Inter-organizational relationship life-cycle, social exchange, power and dependence, relational embeddedness, expectation gaps, organizational decisions, cross-cultural.*

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## TQM AND BUSINESS PERFORMANCE IN THE SPORT BUSINESS SECTOR

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### ABSTRACT

#### PURPOSE OF THE STUDY

Research has proven that a major contribution to sport business competitiveness could be attributed to the application of the Total Quality Management (TQM). Moreover, TQM considered to be related to organizational sustainability. TQM techniques promote the quality and the innovation or the employee involvement as well as the financial stability of sport business (Raxhepi *et al.*, 2018). However, research regarding TQM in sport sector is still limited.

The primary purposes of this study were: (a) to determine the extent to which TQM is applied to medium and large sport businesses (in terms of financial status, organizational structure and facilities) in the region of Attica and (b) to examine the relationship between TQM and business performance in the abovementioned organizations as measured by satisfaction levels in relation to Key Performance Indicators such as profit, ROI, sales volume and market share.

#### DESIGN/METHODOLOGY/APPROACH

The authors addressed the research to all sport businesses in the Region of Attica (180 sport businesses recognised by Association of Fitness Clubs Owners). The respondents were 180 experienced managers who were the most knowledgeable regarding complex and multidimensional processes (such as Total quality management methods) and who can respond as accurately as possible. Responses were received from 162 managers of 162 Greek Sport Businesses with a 90 percent response rate. For the purpose of this study a questionnaire developed by Papaioannou and Kriemadis, 2017 based on the reviewed literature on strategic management and business excellence as well as on input and suggestions from reviews offered by a selected panel of experts. The questionnaire provided specific information concerning the TQM in the Greek sport business sector, demographic characteristics of the respondents and managers' perceptions related to the performance of the sport business. The questions were answered using a five point Likert Scale. The content validity of the questionnaire was determined by a panel of experts including academics and professionals in the fields of strategic management, business excellence, sport management research, and sport management. The reliability of the scale was found to be:  $\alpha = .92$ . Also, the particular research used the subjective way of measuring

performance. This means that sport managers were asked to evaluate the performance of their sport business in relation to their current years' objectives, in relation to their last financial years' objectives and finally, in relation to their major market competitors on a five-point Likert scale. On each of the three bases, performance was judged against four criteria two financial (profit and ROI) and two market based (sales volume and market share). The study was a quantitative design and the analysis was exploratory in nature. Descriptive statistics and Kendall correlation were used to examine variables relationship using SPSS software (version 22).

## FINDINGS

From the analysis it is shown that 19 (11.7%) of sport businesses used TQM to a little extent, 53 (32.7%) used TQM to some extent and more than half of sport businesses 90 (55.5%) used TQM to a great and very great extent. Also, there were significant and positive relationships between TQM and business performance (as measured by satisfaction levels in relation to current year's objectives) of sport businesses. More specifically, TQM had a significant and positive relationship with the managers' satisfaction levels in relation to current year's profit ( $r = .587, p=.000$ ), in relation to current years ROI ( $r = .600, p=.000$ ), in relation to current year's sales volume ( $r = .571, p=.000$ ), in relation to current year's market share ( $r = .612, p=.000$ ), and in relation to current year's Total Business performance ( $r = .653, p=.000$ ).

Also, TQM had a significant and positive relationship with the managers' satisfaction levels in relation to last financial year's profit ( $r = .572, p=.000$ ), in relation to last financial year's ROI ( $r = .663, p=.000$ ), in relation to last financial year's sales volume ( $r = .661, p=.000$ ), in relation to last financial year's market share ( $r = .643, p=.000$ ), and in relation to last financial year's Total Business performance ( $r = .650, p=.000$ ) as measured by satisfaction levels in relation to last financial year's objectives. Lastly, the results suggested that TQM had a significant and positive relationship with the managers' satisfaction levels in relation to major market competitors' profit ( $r = .647, p=.000$ ), in relation to major market competitors' ROI ( $r = .718, p=.000$ ), in relation to major market competitors' sales volume ( $r = .697, p=.000$ ), in relation to major market competitors' market share ( $r = .710, p=.000$ ), and in relation to major market competitors' Total Business performance ( $r = .694, p=.000$ ) as measured by satisfaction levels in relation to major market competitors' objectives of sport businesses. The findings of the present study are consistent with previous studies on TQM and organizational performance, in sport sector, business and service sector (Rial, and Carral, 2015; Valmohammadi, and Roshanzamir, 2015; Shafiq *et al.*, 2019), and shows that the extent of TQM which managers of sport businesses exercised is related to their business performance. The present findings suggested that the effective

implementation of TQM practices in the sport sector is of vital importance and reinforce the organisational survival and growth of sport businesses (Rexhepi *et al.*, 2018).

## RESEARCH LIMITATIONS

The study was delimited to the Sport Businesses. Data for this study were only collected from the Sport Businesses and there was no attempt to generalize this information to all sport organizations. The study was also delimited to a questionnaire designed to collect data regarding TQM according to Papaioannou and Kriemadis (2017).

The following were acknowledged as the limitations of the study:

- The honesty, accuracy, and objectivity of the respondents when completing the questionnaire.
- The respondent's level of understanding of the TQM vocabulary.

Follow-up studies should be done to the same sample in three to five years to investigate possible changes in the utilization of TQM process. Areas of further research could also include measuring the impact of TQM on the satisfaction and loyalty of customers.

## ORIGINALITY/VALUE

This study is useful in extending the concept of TQM to the sport sector. The study will be useful in helping managers to their further understanding of TQM process in their respective organization.

*Keywords: TQM, sport business sector, business performance.*

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# SIGNALING GENDER DIVERSITY ASPIRATION THROUGH VOLUNTARY TARGETS

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## ABSTRACT

Corporate gender diversity has seen increasing relevance in academic literature over the last 20 years. A persistent gender gap, especially in top management positions, has been fueling an ongoing debate on demand-side measures to foster gender diversity. There has been increasing public pressure on companies across the globe to increase female representation, not only on corporate boards of directors but also on lower organizational levels. One recent example is the public announcement of Goldman Sachs in early 2020 to only underwrite IPOs in the US and Europe if companies' boards comprise at least one member from an underrepresented demographic group with a focus on women. Goldman Sachs cites observations that companies with at least one female board member outperform peers post IPO (Goldman Sachs, 2020). The wide media coverage of the departure of SAP Co-CEO Jennifer Morgan, who had served as the first and only female Dax30 CEO for 6 months in 2019/20 is another recent example of public debate on corporate gender equality. Coincidentally, this happened shortly before the 5<sup>th</sup> anniversary of the passing of the 'FüPoG' law which promotes female representation at the upper echelons of the largest German firms through a gender quota which has mandatory as well as voluntary elements.

Differences in country legislation have sparked substantial research activity on gender quotas (Kirsch, 2018; Klettner, 2016; Terjesen et al., 2015) with mixed results on the effectiveness of regulatory measures. Studies focus on antecedents of gender diversity, formal and substantial firm actions to signal gender diversity as well as outcomes of gender diversity. Research on mandatory quotas points to increases in female representation (Wang & Kelan, 2013), but also discover unintended side effects such as the appointment of young, inexperienced directors in France and the delisting of companies in Norway to avoid regulatory requirements as two examples (Rebérioux & Roudaut, 2019; Sojo et al., 2016; Wang & Kelan, 2013). Research on voluntary targets has pointed to positive effects for countries such as Australia and the US (Klettner, 2016; Sojo et al., 2016), but has also been associated with decoupling practices (de Anca & Gabaldon, 2014; Mateos de Cabo et al., 2019; Terjesen et al., 2015). Various studies find that enhanced disclosure and reporting requirements of existing gender diversity are a way forward to achieving parity (Guldiken et al., 2019; Sojo et al., 2016) outside of mandatory quotas.

From a theoretical signaling and institutional perspective, understanding firms' individual cost distribution stemming from applicable quota design yields insights into their rational strategic response to quota implementation. The variety of designs observed in the international corporate landscape and the various academic accounts on outcomes and effectiveness make a structured analysis of gender quota literature necessary. We apply a three-step approach to our structured key word search of terms related to demand-side measures to foster corporate gender diversity (i.e. mandatory and voluntary quotas, targets and reporting) within the Web of Science as well as all relevant and substantial management journals in the timeframe of 2000-2020.

Our structured analysis of literature on gender quotas shows that while mandatory quotas have received substantial attention from researchers, voluntary gender targets remain under-researched. This review locates voluntary targets as a gap within existing literature on corporate gender diversity and demand-side interventions. A thorough understanding of existing quota categories will nurture theory building as a foundation for empirical research on characteristics and contextual factors associated with firms' strategic responses to different legislations and eventually gender outcomes. The contribution of this literature review is threefold: firstly, we contribute to the structuring of quota types and associate respective firm responses as well as outcomes thereby identifying gaps in the coverage voluntary quotas. Secondly, we integrate concepts from adjacent fields of political party quotas and CSR reporting to enrich the hitherto under-researched management perspective on voluntary quotas and targets. Lastly, we derive and discuss research gaps relating to voluntary quotas to pave the avenue for research. We introduce the German gender quota as a natural experiment to further our understanding of firms' strategic responses to external gender legislation.

*Keywords: Gender diversity, gender quota, mandatory quotas, voluntary target, female representation, top management team gender diversity,*

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## VALIDATION OF VIDEO GAME INDUSTRY ECOSYSTEM IN THE GLOBAL ECONOMY

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### ABSTRACT

Video game industry is one of the fastest growing branches in the global entertainment and media market. The industry evolved as a part of creative (Goumagias et al., 2016) and digital (Ruiz et al., 2018) economies due to its creative components (for example, art and ideas), digital technologies and experience. Global value chain of the industry depends on the development and implementation of technologies, moreover, it releases creative product. The presented research devoted to a comparative analysis of the media and entertainment market industries, and it turned out that the role of video games is growing while impact of others is stagnating. As we observe growing segment of the market it remains unclear whether dynamics of video game industry is conditioned by current uncertainties. Our research is aimed to present key features of the industry intensive research and development, dependence on technological progress and innovation, and the industry itself encourages innovation and the introduction of new business models. We would like to fill in the gap finding interorganisational connections between market participants and their functions.

The significance of understanding the validation powers for the industry is demonstrated by the dynamic in figures, the number of players around the world is more than 2.5 billion people (Newzoo, 2019). The main characteristics of the industry are intensive R&D (Deloitte, 2018), dependence on technological progress and innovations (Marchand and Hennig-Thurau, 2013), and the industry itself encourages innovations and the introduction of new business models (Ruiz et al., 2018). As a result of existent systematic literature review, it was revealed that the video game industry is a segment of the global entertainment and media market, which is located at the intersection of the digital and creative economy.

Our field research helped to pinpoint industry ecosystem, which is twofold: the core industry depends on game developers who cooperate with publishers, and game platform manufacturers. Distributors and retailers deliver products on the market to end user. The role of the state and associations is important because they regulate the industry and create opportunities for its development. E-Sports, virtual reality, and streaming are separate industries, but they influence video games by increasing player engagement and improving the user experience.

The research gap was found through profound empirical literature review of R. Williamson and D. Ridsdale (2019), F. J. Ruiz et al. (2018), M. Gonzalez-Pinero (2017). We have tested data from reports of

gaming associations, consulting and analytical companies and statistical websites applying econometric modeling to forecast trends on video game market exposure. The database includes data from 25 countries in the sample: 14 developed and 10 developing with Russia in 2013-2018. The empirical testing showed that the revenue from eSports is significant for all models. The number of economically active population is crucial in both developed and developing countries. In the model of developed countries, the importance of secure servers and intellectual property protection were revealed, while in the model for developing countries significance of the export of ICT services and the degree of influence of ICT on the introduction of new business models was identified. The general model shows the impact of the level of urbanization, population in age of 15 and 34, employment in knowledge-intensive services, and the export of ICT services. Our assumptions were confirmed by modeling which helped to specify most important economic, technological and social determinants that affect the revenue of the video game industry were detected.

To confirm the results we have also composed aggregated potential of industry development. The index takes into account innovation input, Internet users, mobile subscriptions, export of cultural and ICT goods, number of secure Internet servers, influence of ICTs on new business models introduction, eSports revenue, GDP per capita, urban population, level of intellectual property protection, share of labor force in population and share of people of age group from 15 to 34 years.

The data were extracted from such statistical resources of international organizations and online portals as World Bank Open Data, UIS.Stat, UNCTADstat, Esports Earnings, Global Innovation Index and WEF.

Method of index composition:

1) selected indicators were normalized using formula:

$$I_i = \frac{X - X_{\min}}{X_{\max} - X_{\min}}$$

where  $I_i$  – individual index,  $x$  – estimated indicator,  $x_{\min}$  and  $x_{\max}$  – reference indicators which are represented by minimum and maximum values.

2) integral index was compiled by the method of sum of individual indexes (linear model):

$$I_{\text{int}} = \sum I_i$$

The results reveal that Singapore, the UK, Sweden and Switzerland have the most favorable conditions for the development of video gaming industry. However, it is worth noting, that none of countries was included in the group with “extremely high potential”. Most of them are in the moderate category.

Within the framework of the research on the video game industry impact on society and environment, the activities of gaming companies are studied and distributed according to the sustainable development goals. Companies actions are aimed at the reaching almost all SDGs. Such

gradation as “games – companies – alliances” is revealed, which is unique, since the industry uses different mechanisms to improve the environmental and social situation.

Table 1 – Results of index evaluation

| No | Country      | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  |
|----|--------------|-------|-------|-------|-------|-------|-------|
| 1  | Germany      | 43,71 | 43,85 | 44,33 | 46,31 | 49,38 | 50,69 |
| 2  | Spain        | 33,93 | 33,39 | 34,32 | 36,27 | 37,45 | 37,54 |
| 3  | Denmark      | 47,65 | 47,50 | 47,94 | 51,60 | 54,04 | 60,40 |
| 4  | Switzerland  | 55,38 | 57,62 | 58,94 | 60,86 | 63,35 | 65,65 |
| 5  | Sweden       | 51,32 | 50,99 | 51,86 | 52,90 | 54,01 | 53,96 |
| 6  | Japan        | 44,91 | 46,23 | 47,96 | 48,52 | 47,70 | 49,58 |
| 7  | UK           | 52,46 | 52,66 | 54,09 | 55,56 | 56,26 | 56,13 |
| 8  | USA          | 47,62 | 49,02 | 53,10 | 56,50 | 58,46 | 65,31 |
| 9  | China        | 35,78 | 39,27 | 38,87 | 42,23 | 42,42 | 43,39 |
| 10 | France       | 41,80 | 41,14 | 40,94 | 43,48 | 45,29 | 47,06 |
| 11 | Italy        | 30,12 | 27,56 | 29,35 | 31,37 | 33,10 | 35,01 |
| 12 | Finland      | 49,27 | 48,73 | 48,63 | 49,72 | 51,63 | 53,47 |
| 13 | India        | 18,69 | 20,48 | 18,65 | 23,17 | 24,69 | 25,81 |
| 14 | South Korea  | 45,28 | 45,37 | 46,82 | 49,70 | 50,86 | 52,10 |
| 15 | Netherlands  | 49,51 | 49,32 | 51,45 | 53,31 | 57,21 | 59,72 |
| 16 | Australia    | 45,24 | 45,99 | 46,20 | 47,00 | 48,52 | 50,18 |
| 17 | New Zealand  | 44,88 | 45,93 | 47,55 | 48,92 | 50,86 | 50,49 |
| 18 | Russia       | 28,15 | 29,24 | 30,16 | 31,03 | 32,72 | 34,26 |
| 19 | Indonesia    | 21,92 | 25,53 | 28,56 | 30,83 | 31,55 | 29,92 |
| 20 | Malaysia     | 45,88 | 47,67 | 49,49 | 50,41 | 49,80 | 50,57 |
| 21 | Philippines  | 25,50 | 28,14 | 28,96 | 31,79 | 30,88 | 32,88 |
| 22 | Singapore    | 63,23 | 62,87 | 63,57 | 65,99 | 67,73 | 70,09 |
| 23 | Thailand     | 28,10 | 29,63 | 31,52 | 33,94 | 35,54 | 37,93 |
| 24 | Vietnam      | 31,05 | 31,80 | 32,98 | 33,51 | 33,56 | 35,88 |
| 25 | South Africa | 31,62 | 31,69 | 32,75 | 33,03 | 33,80 | 32,39 |

Level of potential:

|  |        |                |
|--|--------|----------------|
|  | 75-100 | Extremely high |
|  | 50-75  | High           |
|  | 25-50  | Moderate       |
|  | 0-25   | Low            |

The main outcome of the work is the evaluation of video gaming potential in studied countries which represents different factors affecting its growth and development. Through the index it is possible to track the dynamics of potential and distribute according the level. Thus, it's crucial to conduct further researches in video game industry using new methods because games are one of the dynamic and important branches in E&M market.

*Keywords: video game industry, entertainment and media market, integral index*

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# IMPACTS OF PRODUCT ADVANTAGE AND NEWNESS ON THE NPP RELATIONSHIP: AN EMPIRICAL MODEL

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## ABSTRACT

### BACKGROUND

New product development (NPD) is amongst the most significant sources of competitive advantage (Schilke 2014) and capability for firms (Maniak et al. 2014). Ultimately, new products lead to improved NPD performance (NPP) through introducing superior products relative to alternatives (Sandvik, Arnett & Sandvik 2011). Equally, the proficiency with which each activity within the NPD process is executed has a critical role to play in leading to superior NPP (Cooper & Kleinschmidt 2000). However, there is limited understanding of how NPD activities execution (NPD-AE) might translate into superior NPP.

This understanding is especially limited in the case of independent new firms, where there is a dearth of understanding (Marion, Friar & Simpson 2012). New products to emerge from the NPD process may make or break fledgling firms. Independent-new-firm NPD may occur differently (Bolumole et al. 2015). New firms frequently suffer from resource scarcity (Kirchhoff et al. 2007), with potentially negative impacts on NPD-AE (Huang, Soutar & Brown 2004) and, hence, new-firm NPP, survival and growth. Given the recognized importance of independent new firms to economic development and growth (e.g. Klapper, Love & Randall 2015), this study addresses the independent-new-firm knowledge gap of how NPD-AE may translate into superior NPP.

A literature-grounded conceptual model was developed (Figure 1) featuring six constructs: NPD-AE, NPP, product advantage, product newness to the firm (PN-Firm) and product newness to the customer (PN-Customer). Direct relationships are posited for H1-H5. H6, however, posits product advantage mediating the PN-Firm → NPP relationship.

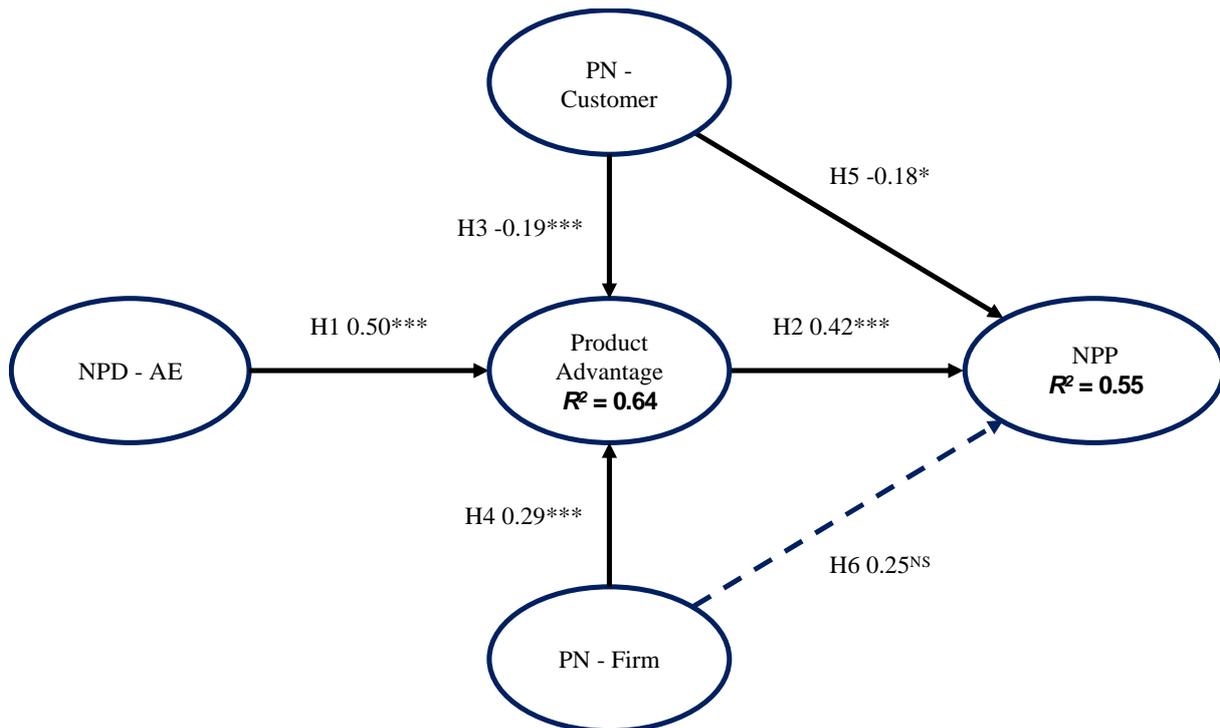
### METHODOLOGY AND RESULTS

Measures were drawn from the literature. NPD-AE was modeled as a formative-formative construct and NPP as formative-reflective. Respondents ( $n = 164$ ) were Australian independent new firms not older than eight years since beginning first systematic sales of their first new product. PLS-SEM

(SmartPLS v3) was used to test the hypotheses. All measurement-model criteria were satisfied (e.g. composite reliability, AVE, discriminant validity).

The findings support all hypotheses, including both the direct relationships (H1-H5) and the mediated relationship (H6), where product advantage was found to mediate the PN-Firm → NPP relationship. The model's explanatory ability ( $R^2$ ) was also good (see Figure 1).

**Figure 1 Conceptual Model and Results**



Note: NS = not significant, \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  (2-tailed test); Control-variable effects not shown.

## CONTRIBUTIONS TO THEORY AND PRACTICE

Our conceptual model offers several contributions to theory and practice. Firstly, it proposes a view about how the relationship between NPD-AE and NPP may be enacted, by pinpointing specific roles and impact of three key intermediate constructs – product advantage, PN-Customer and PN-Firm – on NPP. Our model is one of the first to highlight the collective, but separate, impacts of these three critical constructs on NPP, thus also the value of modelling them separately.

Secondly, the findings offer insights into how practitioners may improve NPP. This includes investing heavily in execution of NPD activities to maximise product advantage, which, in turn, should improve NPP. Next, the greater PN-Firm, the greater the product advantage, thus increasing

NPP. Therefore, pursuing more, rather than less, innovative products to the firm may boost firm success indirectly. Finally, the results highlight the critical role PN-Customer plays in product advantage and NPP. Products more familiar to customers (low PN-Customer) provide greater product advantage and NPP. Conversely, products that are very new to customers (high PN-Customer) reduce product advantage, hence negatively impacting NPP. This suggests that firms need to strike a balance between ensuring that innovations that enhance competitive advantage also remain 'familiar' to consumers, through considering such things as customer-oriented design and ease-of-use features.

## CONCLUSION

The results support the model's posited relationships. Limitations include using a cross-sectional, Australian sample. The study contributes to the domain's knowledge, aiding scholars and managers to better understand the importance of the relationships investigated for independent new firms, guiding practice and policy.

*Keywords: NPD, new product performance, product advantage, product newness to the firm, product newness to the customer*

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## ANTECEDENTS OF SUSTAINABLE INNOVATION: A SYSTEMATIC LITERATURE REVIEW AND FUTURE RESEARCH AGENDA

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### ABSTRACT

Fridays For Future demonstrations have sparked public discussions on sustainable development and renewed pressure on governments to fulfill climate targets. Companies can contribute to solving environmental and social issues in engaging in sustainable innovation, which is generally defined as the development of new products, processes, services and technologies that contribute to the development and well-being of human needs and institutions while respecting natural resources and regeneration capacities (Cillo *et al.*, 2019). Thereby, the terms sustainable, green, and eco-innovation are often used interchangeably, even though the latter ones embrace environmental dimensions while sustainable innovation adds a social one (Ben Arfi *et al.*, 2018). Due to the significance and actuality of these matters, research in sustainable innovation has picked up in recent years.

While initial research focused on the definition and types of eco- or sustainable innovation (Schiederig *et al.*, 2011), recent papers look into the specifics that differentiate sustainable innovation. Thereby, several studies point out that sustainable innovation requires a higher level of cooperation among network partners to develop new products and to ensure eco-friendly characteristics along the value chain. In this context, absorptive capacity and knowledge sharing play an integral role to integrate and exploit external knowledge sources and to manage knowledge transfer and networks (Marchi, 2012; Ben Arfi *et al.*, 2018; Ghisetti *et al.*, 2015; González-Moreno *et al.*, 2019). Similarly, performance measures need to be extended to include non-financial ones (García-Granero *et al.*, 2018). While green innovation usually has a positive impact on environmental performance, the impact on economic performance yields mixed results with innovation aimed at resource and energy efficiency having a positive influence on financial performance while those aimed at reducing externalities might worsen financial results depending on the regulatory environment (Barbieri *et al.*, 2016; Aguilera-Caracuel and Ortiz-de-Mandojana, 2013). Finally, substantial research has been devoted to the determinants of sustainable innovation. At first, they were grouped into four clusters: market-pull, technology-push, regulation, and firm-specific factors (Kunapatarawong and Martínez-Ros, 2016; Horbach *et al.*, 2012; Barbieri *et al.*, 2016; Cillo *et al.*, 2019), but recent studies expand this by investigating the influence of other internal drivers like human resource management and management style (Singh *et al.*, 2020; Dzhengiz and Niesten, 2019).

It is crucial for both, companies and policymakers to get a current and comprehensive understanding of what drives the adoption and success of sustainable innovation to foster it appropriately. However, existing literature reviews are either too old to capture most recent articles or they lack the required breadth (Schiederig *et al.*, 2011; García-Granero *et al.*, 2018; Cillo *et al.*, 2019; He *et al.*, 2018). Consequently, this paper creates a comprehensive overview of the antecedents of sustainable innovation to summarize existing research agreements and to identify contradictions or research gaps. To conduct a systematic literature review, I search for articles that contain the term “sustainable innovation” and other synonyms in their title or abstract in the database Web of Science and filter for articles in SCIE- or SSCI- ranked journals with an impact factor > 1.5 and business, management, and environmental science context. Additionally, I go through recent major business journals and the reference sections of already identified articles to collect additional articles. Finally, I review all abstracts to ensure that the paper concentrates on the antecedents of sustainable innovation.

This review contributes to the literature on sustainable innovation in three ways: (1) It creates a current and comprehensive overview of antecedents of sustainable innovation in the business context; (2) it highlights inconsistencies and contradictions about the influence of determinants; (3) it identifies future areas of research to advance the understanding of sustainable innovation and its success factors. Thereby, the paper provides practical insights for managers into how to create an environment that empowers sustainable innovation.

*Keywords: Sustainable innovation; Eco-innovation: Green innovation; Environmental innovation; Review; Research agenda; Drivers, Antecedents*

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## CONSUMER-BRAND RELATIONAL AUTHENTICITY AND ITS IMPLICATIONS ON BRAND LOVE / HATE

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### ABSTRACT

This research has two purposes: (1) to examine the effect of the consumer-based brand authenticity (CBRA) on brand love and brand hate – and its influence in purchase intention; (2) understanding if the experience in travelling in low cost airline company was a moderate effect between CBRA and brand love and brand hate. It was based on the theoretical perspectives raised on the consumer-brand relationship theory by Fournier (1998). The authors use the case of a well-known low cost airline company in Europe, to empirically test the research model, since there is a widespread acceptance that low cost businesses can either induce to positive feelings, as brand love (Carroll and Ahuvia, 2006; Bagozzi, Batra and Ahuvia, 2017) (as long they address a specific need) or just the opposite – brand hate (Bryson and Atwal, 2019; Fetcherin, 2019). In order to verify this relations the authors tested the model in individuals that have experienced traveling with the airline company.

Amongst scholars there is a widespread agreement regarding authenticity's importance as a concept, nevertheless no commonly accepted definition has been put forward (Becker, Wiegand and Reinartz, 2019). These authors quote the perspective of Beverland and Farrelly (2010, p. 839) signposting "what is consistent across the literature is that authenticity encapsulates what is genuine, real, and/or true". Another term that is at the foundation of the concept of authenticity is brand essence (Brown, Kozinets and Sherry, 2003), which is also supported by Spiggle, Nguyen, and Caravella (2012) that consider preserving brand essence as one of the dimensions of brand extension authenticity and Newman and Dhar (2014) which consider the notion that objects may acquire a special aura or essence from their past which in turn can have a positive effect on perceived authenticity and value.

Data was collected through an online survey evaluating consumer's perception of travelling with a low cost airline company regarding and their views on CBRA, brand love, brand hate and purchase intention. The study follows the two-step structural equation modelling (SEM) methodology recommended by Anderson and Gerbing (1988) using SPSS/AMOS 21 software. We used Putrevu and Lord (1994) scale to measure purchase intention, Ilicic and Webster (2014) scale to measure CBRA,

Zaratonello *et al.*, (2016) scale to measure brand hate and Bagozzi, Batra and Ahuvia (2017) short scale to measure brand love. 5-point Likert scales measured all the variables range between "Totally Disagree" (1) and "Totally Agree" (5).

A total of 200 valid questionnaires were collected. To the question "Have you ever travelled on Ryanair?" 92.5% answered yes and 7.5% no. This question was considered as a moderator question in the conceptual model. 45.80% of the respondents have less than 35 years, 30.0% have between 35 to 44 years, 21.0% have between 45 to 54 years and the rest of the respondents have more than 55 years. 47.0% of the respondents are female and 53.0% male. To evaluate the measurement model, we performed a confirmatory factor analysis (CFA) by maximum likelihood estimation method and Hair's *et al.* (2006) criteria. The measurement model's psychometric values are:  $\chi^2/df = 2.172$ , RMSEA = 0.075, CFI = 0.952; TLI = 0.941; IFI = 0.952. For all constructs, Cronbach's alpha is above of 0.930 and CR values are greater than 0.962 and AVE value are greater than 0.863. All standardized regression weights are significant at  $p < 0.001$ . To test for the validity of the model and the formulated hypotheses, a SEM using maximum likelihood estimation and bootstrapping method was conducted. The structural model's psychometric values are:  $\chi^2/df = 2.385$ ; RMSEA = 0.079; CFI = 0.947; TLI = 0.936; IFI = 0.947, allow us to conclude that the model fit was very good.

The results obtained in the estimation of the proposed conceptual model show that consumer-brand relational authenticity (CBRA) has a negative effect in brand hate ( $\beta = -0.440$ ;  $p < 0.001$ ) validated H1 and has a positive effect on brand love ( $\beta = 0.460$ ;  $p < 0.001$ ) validated H2. The brand hate has a negative effect in purchase intention ( $\beta = -1.165$ ;  $p < 0.001$ ) validated H3 and brand love has a positive effect on purchase intention ( $\beta = 0.257$ ;  $p < 0.001$ ) validated H4. We estimated a moderation effect with the question if the individual have some time travel in the Ryanair (P4) increase the effect of the CBRA on brand hate and on brand love by using the PROCESS SPSS Macro (model 5) to 5.000 bootstrapped samples (Hayes, 2018) for testing the hypothesis H5a and H5b. The results shows that the moderate effect of the travelling before in the Ryanair do not increase the negative effect of the CBRA on brand hate (CBRA $\times$ P4  $\rightarrow \beta = 0.152$ ,  $p = 0.463$ ) and do not increase the positive effect of CBRA on brand love (CBRA $\times$ P4  $\rightarrow \beta = 0.021$ ,  $p = 0.952$ ), and lead us to reject H5a and H5b.

Brands can be viewed as relationship builders since they generate brand love, brand like, brand hate, brand dislike and brand indifference (Fetscherin *et al.*, 2019). The theoretical contribution of this research work is to shed some light into understanding the relationship between consumers' perception of authenticity and how this perception can mediate this relationship in to two opposite directions of feelings: love and hate and induce into consumers' action - the purchase. In an era of social networks feelings towards brands are easily exposed with negative or positive impacts on brand management.

Thus, it is critical to understand how being authentic can induce positive feelings. The results indicated that remaining truthful to one's essence and being authentic induced positive feelings towards the brand such as brand love and increasing purchase intention and decreased feelings such as brand hate. Brand managers should continue to pursue essence and authenticity as a cornerstone of their brand strategy.

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*Keywords: Consumer-Brand Relational Authenticity, Brand Love, Brand Hate, Purchase Intention, Moderate Effects, Structural Equations Model.*

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## LOVE AND HATE MEDIATING THE RELATIONSHIP BETWEEN BRAND PERSONALITY AND PURCHASE INTENTION

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### ABSTRACT

The purpose of this research was to examine the effect of brand personality on two related constructs of the consumer-brand relationship – brand love and brand hate – and the effect in purchase intention. The theoretical discussion is based on the consumer-brand relationship theory (Fournier, 1998) which helped to understand the proposed research model.

Consumers often attribute personality traits to brands who have developed a strong emotional relationship (Fournier, 1998; Aaker, 1997). This relationship with the brand can be positive – brand love (Sun and Kim, 2010) - or negative – brand hate. The seminal work of Aaker (1997) was used for the majority of the research on brand personality, however, in this research, we used Geuens, Weijters and de Wulf, (2009) works about brand personality because all the criticisms that Aaker's scale had amongst researchers and because their scale was more adequate to address the study objective. Brand personality definition used in this research is the one from Azoulay and Kapferer (2003, p. 151) that posit "brand personality is the set of human personality traits that are both applicable to and relevant for brands". Several authors show that brand personality plays an important role in final purchase decision when abstract and emotional factors are emphasized to differentiate a brand (Aaker, 1997; Wang and Yang, 2008). As such, brand personality perception in consumer's mind can be changed by positive or negative experiences and their intention to purchase will be also affected (Aaker, 2010; Lin, 2010, Toldos-Romero and Orozco-Gómez, 2015).

For this research, a quantitative methodology was employed. It was used an online survey by questionnaire to measure relationships between constructs on a theoretical model, about Ryanair, in the Portuguese consumers. The study follows the two-step structural equation modelling (SEM) methodology recommended by Anderson and Gerbing (1988). We used Putrevu and Lord (1994) scale to measure purchase intention, we used Geuens, Weijters and de Wulf, (2009) scale to measure brand personality, Zaratonello *et al.*, (2016) scale to measure brand hate and Bagozzi, Batra and Ahuvia (2017) short scale to measure brand love.

A total of 200 valid questionnaires were collected. 45.80% of the respondents have less than 35 years, 30.0% have between 35 to 44 years, 21.0% have between 45 to 54 years and the rest of the respondents have more than 55 years. 47.0% of the respondent are female and 53.0% male. To the question "Have you ever traveled on Ryanair?", 92.5% answered yes and 7.5% no.

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 Hair's et al. (2006) criteria. The measurement model's psychometric values are:  $\chi^2/df = 2.169$ , RMSEA = 0.072, CFI = 0.914; TLI = 0.899; IFI = 0.915. Only three dimensions of the brand personality scale used were validated – conscientiousness, emotionality and aggressiveness. SEM using maximum likelihood estimation and bootstrapping method was conducted to test for the validity of the model and the formulated hypotheses. The structural model's psychometric values are:  $\chi^2/df = 2.205$ ; RMSEA = 0.067; CFI = 0.912; TLI = 0.899; IFI = 0.913, 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 BP\_A (responsible and dynamic – conscientiousness) has a negative effect in brand hate ( $\gamma = - 0.195$ ;  $p = 0.002$ ) validated H1. The same occurs in the hypothesis H2, when the BP\_A (responsible and dynamic – conscientiousness) has a positive effect in brand love ( $\gamma = 0.154$ ;  $p < 0.001$ ) validated H2. The BP\_B (emotionality) have a negative effect in the brand hate ( $\gamma = - 0.180$ ;  $p < 0.001$ ) validated H3. The BC\_B (emotionality) have a positive effect on brand love ( $\gamma = 0.769$ ;  $p < 0.001$ ) validated H4. With regard to the BP\_C (dark - aggressiveness), the results show us that have a negative in brand love but are not statistically significant ( $\gamma = - 0.065$ ;  $p = 0.123$ ) rejecting H5. Finally, BP\_C (dark - aggressiveness) has a negative effect in brand hate ( $\gamma = - 0.623$ ;  $p < 0.001$ ) validated H6. The results also confirm the hypotheses H7 and H8, this is, the brand hate has a negative effect in purchase intention ( $\beta = - 1.173$ ,  $p < 0.001$ ) and brand love has a positive effect in purchase intention ( $\beta = 0.260$ ,  $p < 0.001$ ).

As defended by Toldos-Romero and Orozco-Gómez (2015) the importance of brand personality and its effects on purchase intention have not been well establish and acknowledged. This research aims to fulfil that gap, showing that brand personality, mediated by emotional relationship constructs, have effects on purchase intention. For managers it is very important to know that consumers perceive brand personality and that this perception influences the relationship that they establish with the brand and ultimately their decision to purchase or not the brand.

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*Keywords: Brand Personality, Brand Hate, Brand Love, Purchase Intention*

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## PLACE BRANDING DESTINATION: A GASTRONOMIC EXPERIENCE

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### ABSTRACT

#### PURPOSE OF THE RESEARCH

This research intent to analyse the effect of five dimensions of gastronomic experience (refreshment, involvement/knowledge, hedonic/novelty, meaningfulness and adverse experience) in city destination – Porto – on the happiness and life satisfaction of the tourist.

#### THEORETICAL BACKGROUND AND HYPOTHESES

Chan and Marafa (2013) posit that a multi-dimensional interpretation of places offer a multiplicity of chance to understand the essence of destination branding. In the recent years, brands became value responsible that offer values to several stakeholders. Then, the role of the branding was progressive to become strategic buildings of a long-term value-based relationship with the consumers (Fournier, 1998). In this way, branding can promote the actual name of the location and the way how the place was perceived by tourists (Keller, 2008; Zenker, 2011).

City and destination marketing may be the way to change organisations and consumers attitudes and behaviours' and increase attractiveness across city branding (Lucarelli, 2012; Camilleri, 2018). The search for alternative solutions for the differentiation of tourism destination has been discussed by several authors (Alonso and Northcote, 2010; Camilleri, 2018; Dubois, Cawley and Schmitz, 2017; Quan and Wang, 2004). Then, the gastronomic experience can be a way to differentiate a city or a tourism destination from the competition.

Govers and Go (2009) considers experiences as one important element in the definition of city branding as it is concerned with a multi-sensory, fantasy and emotive aspects of experiential or hedonic products met in a city. The self-determination theory (SDT), developed by Deci and Ryan (2008), posit that the nature of consumer's motivation to participate in an experience, in this case, in a gastronomic experience, can impact outcomes of the experience. Gillet, Vallerand, Lafreniere and Bureau (2013) defends that if the consumer experience was positive, then it may increase the well-being and life satisfaction of the individual. Also Knoblock, Robertson and Aitken (2017) posit that in tourism context, consumer experiences have impact on well-being and quality of life.

Several research have shown that consumers' happiness is connected to live experiences (Bhattacharjee and Mogilner, 2014; Loureiro, Breazeale and Radic, 2019), namely, experiences related to tourism. On the other hand, tourism experience are associated with life satisfaction (Bimonte and Faralla, 2015; Naidoo and Sharpley, 2016; Nawijin, 2016) and happiness (Loureiro *et al.*, 2019). As such, it is to be considered that a consumer satisfied with life is more likely to be happy with a gastronomic experience, in a city destination and, then, we can posit the following hypotheses:

H1: Refreshment experience with gastronomy/food increase the life satisfaction of tourist in destination city

H2: Involvement/Knowledge experience with gastronomy/food increase the life satisfaction of tourist in destination city

H3: Hedonic/Novelty experience with gastronomy/food increase the life satisfaction of tourist in destination city

H4: Meaningfulness experience with gastronomy/food increase the life satisfaction of tourist in destination city

H5: Adverse experience with gastronomy/food decrease the life satisfaction of tourist in destination city

H6: Refreshment experience with gastronomy/food increase the happiness of tourist in destination city

H7: Involvement/Knowledge experience with gastronomy/food increase the happiness of tourist in destination city

H8: Hedonic/Novelty experience with gastronomy/food increase the happiness of tourist in destination city

H9: Meaningfulness experience with gastronomy/food increase the happiness of tourist in destination city

H10: Adverse experience with gastronomy/food decrease the happiness of tourist in destination city

H11: Life satisfaction increase the happiness of tourist in destination city

## **METHODOLOGY**

A quantitative methodology was employed for this research and data collection was done using a structured questionnaire. The study follows the two-step structural equation modelling methodology recommended by Anderson and Gerbing (1988) and using SPSS/AMOS 22 software. The measurement model is developed according to the constructs considered in the theory and then to estimate the causal relations that validate or not the hypotheses raised. The relevant constructs in the theoretical model were operationalised measures from existing literature, advocated by Podsakoff *et*

*al.* (2003) as a procedural method to reduce the common method bias. Questionnaire items were adapted from validates studies to develop a survey measuring. Respondents completed the survey by answering questions on a 1 = “strong disagree” to 5 = “strongly agree”. A total of 338 valid questionnaires are obtain of Porto tourist, in January 2019. It was used the Adongo, Anuga and Dayour (2015) scale to measure the attributes of international tourists’ local food experience, to measure life satisfaction it was used the Diener et al. (1985) scale and to measure happiness it was used the Lyubomsky and Lepper (1999) scale.

## FINDINGS

A confirmatory factor analysis (CFA) was performed by maximum likelihood estimation method and Hair’s *et al.* (2006) criteria to evaluate the measurement model. The measurement model’s psychometric values are:  $\chi^2/df = 2.102$ , RMSEA = 0.057, CFI = 0.944; TLI = 0.927; IFI = 0.945. The results shows a good measurement fit. We considered the reliability and validity of the scales chosen to measure each of the constructs. For all constructs, Cronbach’s alpha is above of 0.646 and CR values are greater than 0.759 and AVE value are greater than 0.614. All standardized regression weights are significant at  $p < 0.001$ . All composite reliabilities are greater than the minimum criteria of 0.70 (Nunnally and Bernstein, 1994). The average variance extracted (AVE) provides evidence of the overall convergent validity of each construct as indicates the amount of variance explained by the construct relative to the amount of variance that may be attributed to measurement error and should exceed 0.50 (Fornell and Larcker, 1981).

Structural Equation Modelling (SEM) using maximum likelihood estimation and bootstrapping method was conducted to test for the validity of the model and the formulated hypotheses. The structural model’s psychometric values are:  $\chi^2/df = 2.102$ ; RMSEA = 0.057; CFI = 0.944; TLI = 0.927; IFI = 0.945, allow us to conclude that the model fit was very good.

The results obtained in the estimation of the proposed conceptual model show that in respect refreshment experience with gastronomy has a positive effect on life satisfaction ( $\beta = 0.138$ ,  $p = 0.033$ ) leave us to accept hypothesis H1. Involvement/Knowledge experience with gastronomy decrease the effect on life satisfaction ( $\beta = -0.099$ ,  $p = 0.019$ ) contrary what was expected and leave us to reject hypothesis H2. Hedonic/Novelty experience with gastronomy/food increase ( $\beta = 0.267$ ,  $p = 0.003$ ) the life satisfaction of tourist in destination city, leave us to accept hypothesis H3. Meaningfulness experience with gastronomy/food do not affect ( $\beta = 0.039$ ,  $p = 0.404$ ) the life satisfaction of tourist in destination city, leave us to reject H4. And adverse experience with gastronomy/food do not decrease ( $\beta = 0.008$ ,  $p = 0.879$ ) the life satisfaction, leave us to reject H5 too. With regard to the effects of gastronomic experience in happiness, the results show that refreshment

experience has a positive effect on happiness ( $\beta = 0.159$ ,  $p = 0.006$ ) leave us to accept hypothesis H6. Involvement/Knowledge experience with gastronomy/food do not increase ( $\beta = -0.008$ ,  $p = 0.830$ ) the happiness of tourist in destination city, leave us to reject H7. Hedonic/Novelty experience with gastronomy/food increase ( $\beta = 0.149$ ,  $p = 0.068$ ) the happiness of tourist in destination city, at 90% of confidence, and leave us to accept H8. Meaningfulness experience with gastronomy/food do not affect ( $\beta = 0.032$ ,  $p = 0.434$ ) the happiness of tourist, leave us to reject H9. And, adverse experience with gastronomy/food decrease ( $\beta = -0.147$ ,  $p = 0.014$ ) the happiness of tourist, as expected, leave us to accept H10. Finally, life satisfaction increase ( $\beta = 0.293$ ,  $p < 0.001$ ) the happiness of tourist in destination city, leave us to accept H11.

## CONCLUSION, CONTRIBUTIONS AND LIMITATIONS

The results shows that the gastronomic/food experience of the Porto tourist only are validate the hypotheses that the experience of refreshment and the hedonic/novelty experience increase the life satisfaction and the happiness of the tourist. The adverse experiences decrease the happiness of the tourist of the city, and finally, the life satisfaction improve the happiness of the tourist in the Porto city. The involvement/knowledge and the meaningfulness experiences with the gastronomy/food are not statistic relevant to improve the life satisfaction or the happiness of the Porto tourist.

This research contributes when providing guidelines and a framework for developing and implementing gastronomic experiences tourism could enable organizations and marketers to optimise the tourism potential of local gastronomy, in a city destination.

The main limitations are the convenience sample, as the data was collected from tourists who, during a certain period, visited the Porto city and the fact that it was only focused on one city.

## ACKNOWLEDGE

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*Keywords: Gastronomic/food experience; life satisfaction; happiness; city destination, tourism*

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## FOOTBALL MEMBER SATISFACTION: PRELIMINARY AUSTRALIAN FINDINGS

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### ABSTRACT

There is a need for greater specificity in models assessing sports fans' satisfaction, particularly members, i.e. season ticket holders (STHs). To this end, we extend the previous multi-attribute satisfaction studies to posit a six-dimension model of STH satisfaction: club administration, communication, home ground, on-field performance, personal involvement and service. Using a sample of members (STHs) of an Australian A-League football team, we evaluate our STH satisfaction construct in a nomological net as a driver of COBRAs (consumers' online-related brand activities) and behavioural-loyalty intentions., the findings provide initial support for the six-dimension model and its role as a driver of COBRAs and behavioural-loyalty intentions.

### 1. BACKGROUND

Running professional sporting clubs means creating memorable leisure experiences for fans. Therefore, 'customer' (fan) satisfaction is greatly important to clubs (Sarstedt et al., 2014). This is especially so considering the likely outcome of dissatisfied sports fans is to lessen their consumption. Given the multifaceted, experiential nature of the football consumption experience, conceptualising overall fan satisfaction as a multi-attribute, multidimensional model is appropriate (McDonald et al., 2013; Sarstedt et al., 2014). Sport satisfaction studies are often limited to student samples or general game attendees, yet there is a need for greater specificity such that they can be applied to more segmented and exclusive groups, such as members or season ticket holders (STHs) (McDonald et al., 2018).

To this end, this study builds on a multidimensional satisfaction scale specifically developed for football STHs (McDonald et al., 2013; McDonald et al., 2018) designed to assess respondents' evaluations of team activities and services. Their work identified five broad areas that impact STH satisfaction: service to members; on-field performance; personal involvement; team administration; and home-ground quality. From reviewing the literature (e.g. Sarstedt et al., 2014) and current professional-sport practice, we extend this work by adding a sixth dimension: communication. Our

conceptual model (Figure 1) features STH satisfaction as a multidimensional, reflective-reflective hierarchical construct (HOC), with six first-order dimensions: club administration (CA), communication (COM), home ground (HG), on-field performance (OFF), personal involvement (PI) and service (SRV).

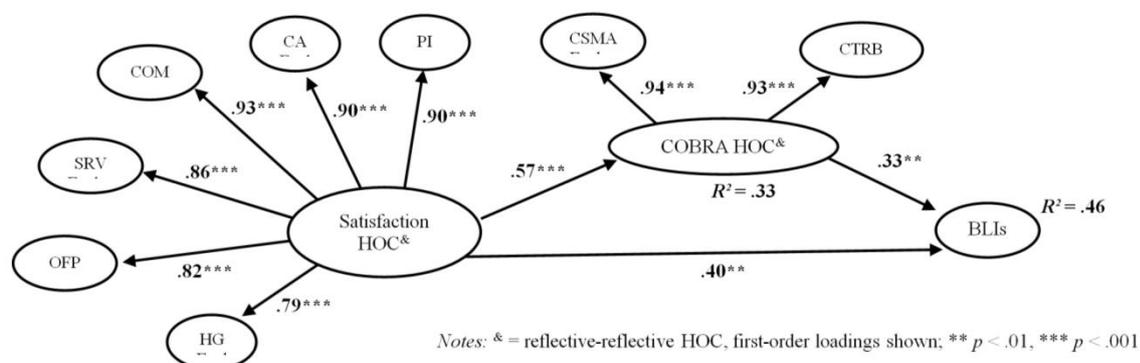
We evaluate our STH-satisfaction HOC construct as a part of a nomological net, that includes behavioural-loyalty intentions (BLIs) and COBRAs (consumers' online-related brand activities) HOC of consuming and creating. Consuming (CSMA) is participating without actively contributing to or creating content, whilst contributing (CTRB) denotes both user-to-content and user-to-user interactions about brands (Muntinga et al., 2011). We next briefly detail the methodology and preliminary results of our STH study.

## 2. METHODOLOGY & RESULTS

Data is part of a larger football-fan study. Measures included STH satisfaction (adapted from McDonald et al., 2013; McDonald et al., 2018) and COBRAs – both reflective-reflective HOCs – and BLIs (Achen, 2016; Muntinga et al., 2011). Age, gender and pre-season-game viewing were controls. An online survey of one A-League club's STHs returned 504 usable responses. Respondents were typically 50 years old, male (79%), owned 3-4 items of club merchandise and attended 8-10 home games in the previous season.

PLS-SEM analysis used SmartPLS v3 (Ringle et al., 2015) with 5,000 bootstraps. HOCs used the repeated-indicator approach. Constructs satisfied relevant criteria: item loading, composite reliability ( $> .80$ ), Cronbach's alpha ( $> .70$ ), AVE ( $> .50$ ), collinearity (inner-model VIFs  $< 3$ ) and Fornell-Larcker discriminant validity. STH satisfaction HOC had a significant, positive influence on COBRA HOC ( $p < .001$ ) and BLIs ( $p < .01$ ). COBRA HOC had a significant, positive influence on BLIs ( $p < .01$ ). See Figure 1.

**Figure 1 Conceptual Model – Preliminary Results**



### 3. CONCLUSION AND NEXT STEPS

The findings provide initial support for the 6-dimension STH satisfaction construct and its importance as a driver of COBRAs and BLIs. Equally, COBRAs were found to influence BLIs. Research limitations include using a cross-sectional sample. At submission time, further analysis and conceptual development is in progress.

### ACKNOWLEDGEMENT

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*Keywords: Football, Soccer, Satisfaction, Season ticket holders (STHs), COBRAs (consumers' online-related brand activities), Fan loyalty, A-League, Australia*

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# UNDERSTANDING WOMEN'S FOOTBALL MOTIVATIONS AND COBRAS: PRELIMINARY AUSTRALIAN FINDINGS

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## ABSTRACT

### 1. INTRODUCTION

There is growing global interest in women's professional sport. Recent research reveals a 48% increase in interest in Australian women's sport for 2019 over 2018, with 53% of Australians now watching broadcasts or attending live women's sporting events (Hytner, 2019), yet women's professional football (Westfield W-League) suffers low attendance numbers. Research has not kept up with this changing landscape. To this end, we posit a model of women's football fan motivations driving COBRAs (consumers' online-related brand activities), which in turn drive commitment and behavioural loyalty (BL). We report preliminary results of a study of Australian W-League fans.

### 2. LITERATURE

We use seven sport-consumption motivation dimensions relevant for the W-League context: team interest, socialising, aesthetics, sport knowledge, football interest, vicarious achievement and excitement (Wang et al., 2011). COBRAs: consuming is participating without actively contributing to or creating content, contributing denotes both user-to-content and user-to-user interactions about brands and creating is actively producing and publishing brand-related content that others consume and contribute to. Customer engagement towards brand media has been found to provide enhanced brand-loyalty explanatory power (Simon and Tossan, 2018). Figure 1 presents our conceptual model.

### 3. METHODOLOGY

Data comes from a larger study. Measures include: motivations (Wang et al., 2011) modelled as a reflective-formative hierarchical construct (HOC), consuming, contributing and creating COBRAs (Simon and Tossan, 2018), commitment and BL (Achen, 2016). Age and gender were controls. An online survey returned 120 usable W-League fan responses, who were typically 31-40 years old,

roughly gender equal (female – 48), owned 3-4 team merchandise items and attended half their team’s home games in the previous season.

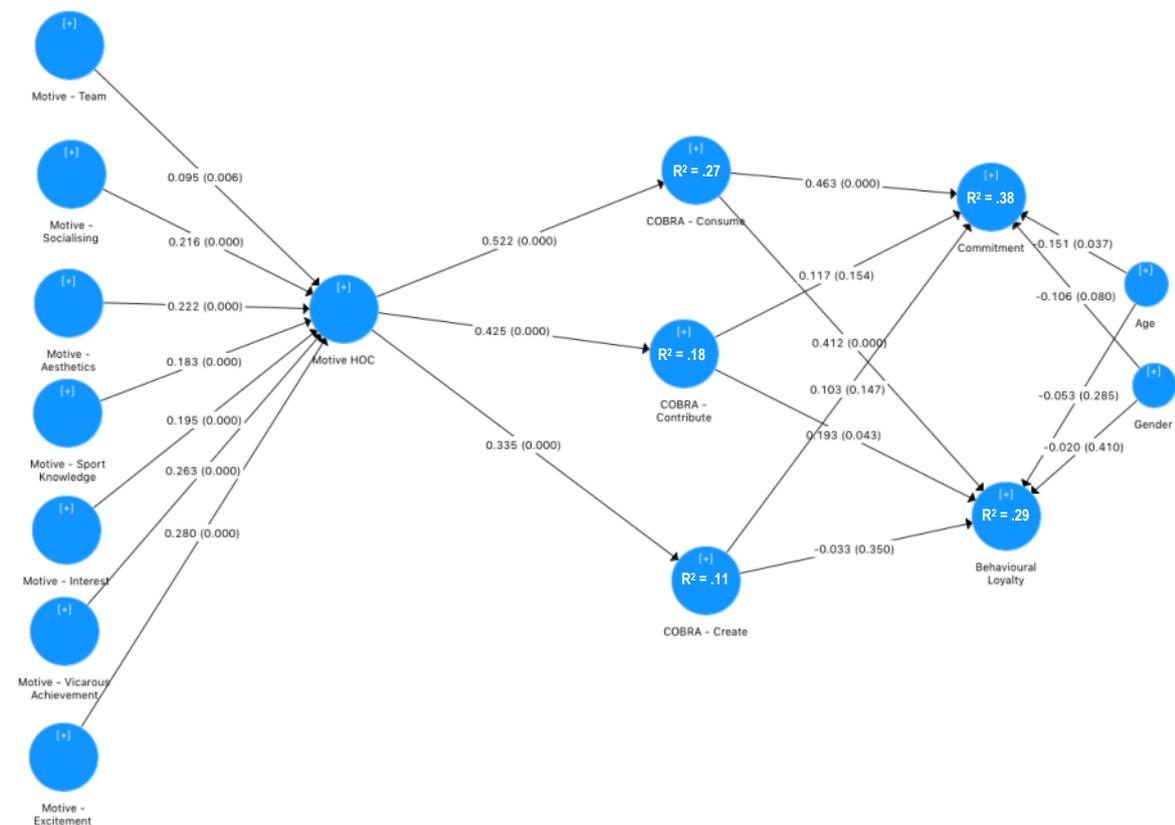
### 4. ANALYSIS & RESULTS

PLS-SEM analysis featured SmartPLS v3 (Ringle et al., 2015), 5,000 bootstraps. Motivations HOC used a repeated-indicator approach. Constructs satisfied composite reliability (> .70), Cronbach’s alpha (> .70), AVE (> .50), collinearity (VIF) and Fornell-Larcker and HTMT discriminant-validity criteria. Motivations HOC had a significant, positive influence on all three COBRAs ( $p < .001$ ). The COBRAs had varying effects on commitment and BL, with consuming significantly influencing both ( $p < .001$ ), contributing influencing commitment only ( $p < .05$ ) but no influence on creating ( $p > .10$ ). See Figure 1.

### 5. CONCLUSION AND NEXT STEPS

The findings support motivation’s importance as a driver of COBRAs. Equally, COBRAs were found to influence commitment and BL, although there were variations. Finally, at the time of submission, further analysis work and conceptual development is in progress, along with developing the discussion and conclusions.

Figure 1 Conceptual Model – Preliminary Results



Note: path coefficients and p-values reported (one-tailed tests used).

## FUNDING ACKNOWLEDGEMENT

This research was supported by a grant from the Faculty of Business and Law, University of Newcastle.

*Keywords: Women's football, Soccer, Motivations, COBRAs (consumers' online-related brand activities), Fan loyalty, W-League, Women's sport, Australia*

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## INTERNATIONALIZATION OF EMERGING MARKET SMES AND DIGITALIZATION: A SYSTEMATIC LITERATURE REVIEW

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### ASBTRACT

Small-medium sized enterprises (SMEs) are driving forces of the business landscape and are confronted with challenges when going abroad. Compared to large multinationals, the literature has pointed out some specific barriers that hinder SMEs in their international development (Guercini and Runfola, 2015; Hollender et al., 2017; Mahfuzur Rahman et al., 2017). One of the potential opportunities to overcome such barriers and to enhance the effectiveness of their international strategies is nowadays considered digitalization. However, despite the growing interest in this topic, the relationship between digitalization and internationalization is still under-investigated (Katsikeas et al., 2019), especially considering the SMEs case. In this paper, we try to propose an original perspective on this issue. While past research on SMEs has mainly focused on companies from developed markets, this paper focuses the attention on SMEs from emerging markets. The international development of emerging market companies is increasingly attracting the attention of scholars in the business and management domains (Wu & Deng, 2020). The paper contributes to this regard by addressing the following research questions: RQ1) What are the main barriers in emerging market SMEs internationalization? RQ2) How can digitalization affect the internationalization of SMEs coming from emerging markets?

To deal with these research questions, the paper proposes a systematic literature review (Snyder, 2019). The articles included in this review were retrieved in the Scopus and Web of Science databases, taking into consideration the period 2010 – 2020 and the “Business and Management” area. The keywords used for the search were: “internationalization”, “SMEs”, “developing market”, “emerging market” and “digitalization”. To get relevant publications, we made combinations of the terms, for instance: “internationalization” and “developing market SMEs”; “digitalization” and “SMEs” and “developing market”. A set of 79 articles were retrieved. Through a careful reading of the abstracts and keywords of each article, we decided to include 38 papers for this systematic review, that specifically deal with the topics of this research.

The literature identifies barriers of internationalization as a set of both internal to the company, such as resources capacity (Fornes & Cardoza, 2019), R&D investments (M. Rahman et al., 2017), and external such as high costs of transportation (Wu & Deng, 2020), regulation of international operations (Jafari Sadeghi et al., 2019). Within the literature, one of the potential options to overcome barriers is

engaging in innovation activities (Garg & De, 2014). In this context, digitalization can be considered as a way for operating more efficiently in a foreign environment (see as example Jean & Kim, 2019). But in the meantime, the results of the preliminary literature review discovered that the aspect of applying digital technologies for emerging market SMEs to deal with liabilities is limited (Beliaeva et al., 2019). Taking this into account, along with the idea that SMEs are performing international activities differently on the base of their market origin, there is a lack of knowledge that requires more investigations concerning the effect of applying digital tools on the internationalization process. The findings of this research contribute to the international business literature by considering two leading streams of research: international process and digitalization, shedding light on the need to study SMEs, particularly, from emerging markets. Managerial implications of the results are related to the potential implementation of new strategic approaches and tools either to enter new markets or to increase the existing involvement in overseas markets, driving the international development of the company abroad. In this respect, future research should be aimed at the consideration of how emerging market SMEs can integrate technological issues in their international expansion to examine the impact of specific digital tools and the main barriers to overcome in their implementation for their successful use.

*Keywords: internationalization, emerging market SMEs, digitalization, barriers, liabilities*

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## TAKING A HOLISTIC APPROACH TO STUDYING CHANGE

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### ABSTRACT

Concepts, models and theories of planned change include rational, learning and cognitive perspectives (e.g., Rajagopalan and Spreitzer, 1996) referring directly or indirectly to the pioneering three-phase model of Lewin (Burns, 2004). Nevertheless, the phase of unfreezing has received special attention both in research and practice followed by the phase of changing. The entire process from initiation to the sustainable implementation of a planned change is less frequently addressed (Cummings, Bridgman and Brown, 2016). Hence, the predominant focus lies on the willingness and readiness for change since this is considered one of the most important factors when it comes to supporting change initiatives (Rafferty et al., 2013). Change readiness is generally defined as the cognitive precursor of observable behavior that manifests itself either in a willingness and support for change or in resistance to change. Change readiness includes several factors indicating the probability that a person or organization is committed to and supports change (Vakola 2013).

Even though numerous studies point to the importance of change readiness (Oreg et al., 2011), it represents only one part of an entire change process. As organizational change theories suggest, all phases of a change process are equally important in order to finally accomplish a planned change initiative (Demers, 2007) – including its implementation phase. According to Huy et al. (2014), successful implementation is especially relevant for a planned change project. Only through successful implementation does a change process show its effect (Schwarz and Huber 2008).

In research and practice, however, little attention has been paid to this final phase of implementation that requires developing new routines. Possible reasons may be the constant pressure to change, frequent announcement of new change initiatives as well as the danger that individuals, groups and the entire organization fall back into their old routines and trodden paths (Schreyögg and Sydow, 2010). Since old routines are triggered automatically - especially in stressful situations - they tend to surface despite the knowledge and willingness to practice the newly developed behavior. Furthermore, the last phase of implemented change is often not operationalized (Cummings et al. 2016) and thus ignored or neglected. Reason may be difficulties in its operationalization as well as the research design. Covering a change from its initiation to its final implementation requires a comprehensive conception and operationalization of change and a longitudinal perspective. For this reason, we have developed and operationalized the concept of change-fitness. Change-fitness comprises the concept of change readiness of an organization at different levels as well as its ability

for change. It includes resources required for a change process and the necessary competencies for undertaking and performing the appropriate behavior that makes a change process happen at the individual, the group and the organizational level including contextual variables.

In the presentation, the concept of change-fitness will be further detailed and explained including the data collection instrument that is currently used surveying the change-fitness of companies based in the German-speaking region for the fifth time. Hence, the presentation will be enriched by some of the findings and insights gained from a ten-year study.

*Keywords: Change, studying change, change-fitness, change readiness, conceptualizing change, change implementation, change support.*

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## RETROSPECTIVE ANALYSIS AND ECONOMIC BURDEN OF DIABETES MELLITUS: AN APPRAISAL ECONOMIC MODEL

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### ABSTRACT

The aim of this population-based longitudinal study was to evaluate healthcare costs, diabetes prevalence, the onset of complications and the mortality of Diabetes Mellitus (DM) using the Cost-of-Illness (COI) approach on the combination of numerous administrative health databases. All subjects residing in Apulia Region who during the year 2005 had a hospital discharge with an ICD-9 CM code 250.XX, and/or two consecutive prescriptions of drugs for diabetes (ATC code A10XXXX) within one year, and/or an exemption from co-payment healthcare costs specific for DM, were selected and followed up to 10 years. A total of 264,126 eligible subjects in the year 2005 were identified. The percentage of hospital costs on total expenditure has recorded diverse phases over the years, ranging from € 2778.82 in 2006 (72.98%), to € 4060.73 in 2016 (73.79%) and the relative contribution of the other costs increased: pharmaceutical cost ranged from € 895.43 in 2006 (23.52%), to € 1144.70 in 2016 (20.8%), and outpatient costs ranged from € 133.63 in 2006 (3.51%), to € 297.77 in 2016 (5.41%). The model represents a valid decision support for the economic management of the health system and can be effectively applied as a tool both to monitor direct expenditure and to reduce the costs of illness.

### THEORETICAL BACKGROUND

During the past decade, rapid growth in several scientific fields of relevant interest and, in particular, in the area of population-based epidemiological evidence, has encouraged to better explaining the role of diet in the prevention and control of morbidity and mortality resulting from Non-Communicable Diseases (NCDs) (Savelieff *et al.*, 2020). Changes in daily eating patterns and lifestyles occurred with economic development, are having a noteworthy influence on the health and nutritional status of the populations (Ng *et al.*, 2020; Ezzati *et al.*, 2005).

As the availability of food expanded and become more assorted, there have been significant negative consequences in terms of inappropriate dietary patterns, decreased physical activities and a corresponding increase in chronic diet-related diseases (Johnston *et al.*, 2014; Gearhardt *et al.*, 2011). Chronic NCDs, such as diabetes, are becoming increasingly significant causes of disability among

people, placing additional burdens on already overtaxed national health budgets (Goodman *et al.*, 2004).

Diabetes represents not only a major concern in terms of clinical care but also an immense public health challenge. In 2016, over 3 million and 200 thousand people in Italy reported suffering from diabetes, 5.3% of the total population (Lee *et al.*, 2016). Eye, kidney, and cardiovascular diseases disproportionately affect people with diabetes, which involve significant healthcare costs. Although many interventions can reduce the health burden of diabetes, the economic management of health resources is still limited (Weaver *et al.*, 2014). Therefore, evidence is needed to inform healthcare professionals and policy-makers of the costs and benefits of these interventions, and thus, help payers and patients establishing priorities for diabetes prevention and control interventions.

The aim of this population-based longitudinal study was to evaluate healthcare costs, diabetes prevalence, the onset of complications and the mortality of Diabetes Mellitus (DM) using the Cost-of-Illness (COI) approach on the combination of numerous administrative health databases. The model sought to estimate the average annual cost incurred by the Apulia Regional Health Service for the treatment of DM stratified by patients' comorbidities.

## **METHODOLOGY**

DM population was identified through a combination of different datasets: Hospital Discharge Registry (HDR), Cause of Death Registry (CDR), Outpatient Services Registry (OSR), User Fee Exempts Registry (UFER), and Drugs Prescription Registry (DPR). In order to estimate diabetes costs, a unique database matching the records extracted from data sources by using the personal ID number was created.

All individuals, who during the year 2005 had a hospital discharge with an ICD-9 CM code 250.XX, and/or two consecutive prescriptions of drugs for diabetes (ATC code A10XXXX) within one year, and/or an exemption from co-payment healthcare costs specific for DM, were selected and followed up to 10 years. The prevalence, mortality, and healthcare costs (hospitalizations, drugs and outpatient examinations/visits) from the Regional Health Service viewpoint were calculated.

## **RESULTS**

A total of 264,126 eligible subjects in the year 2005 were identified. At the index date, the study population was aged 65-69 (15.47% male and 14.77% female), and 70-74 years (13.68% male and

15.67% female). Only 0.38% of the sample was < 15 years. Different contributions of the three classes of costs (HDFs, pharmaceutical prescriptions and outpatient services) were found in different years. The percentage of hospital costs on total expenditure has recorded diverse phases over the years, ranging from € 2778.82 in 2006 (72.98%), to € 4060.73 in 2016 (73.79%) and the relative contribution of the other costs increased: pharmaceutical cost ranged from € 895.43 in 2006 (23.52%), to € 1144.70 in 2016 (20.8%), and outpatient costs ranged from € 133.63 in 2006 (3.51%), to € 297.77 in 2016 (5.41%).

## CONCLUSION

This study is the largest focused on real Apulian data to estimate, through the COI model, the economic burden of DM and its comorbidities from the Regional Health Service's perspective. Prevalence, mortality, and healthcare costs were assessed on a sample of diabetic patients followed for 10 years.

Merging different administrative databases can provide many data from large populations observed for long periods (Harris-Kojetin *et al.*, 2017; Scalone *et al.*, 2014). This study was effective for its ability to give, in a relatively short time, a quite big set of estimates of the burden of DM, punctually providing information to policy-makers for health planning. The results obtained were comparable to those shown in the studies of Marcellusi *et al.*, (2016) and Scalone *et al.*, (2014) although their analyses were carried out in different Italian regions with territorial, social and demography differences. The model represents a valid decision support for the economic management of the health system and can be effectively applied as a tool both to monitor direct expenditure and to reduce the costs of this disease.

*Keywords: Chronic Non-Communicable Diseases; Diabetes; Cost-of-Illness; healthcare costs; evaluation model; public economics; Regional Health Service*

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## HOW TO BUILD A MOTIVATIONAL SYSTEM FOR SOCIAL INNOVATION THROUGH THE KNOWLEDGE SHARING? BEST PRACTICES FROM THE AGRIFOOD NETWORKS

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### ABSTRACT

The World Economic Forum has recognized in social innovation a way to be more strategic, more ambitious and more collaborative in facing the most urgent challenges of our time (<https://reports.weforum.org/social-innovation/>).

Social innovation could be interpreted as a complex process (Westley and Antadze, 2010; Oeij et al., 2019) considered by the generation and implementation of new ideas (Mumford, 2002), by organizational and inter-organizational activity (Tracey and Stott, 2017) capable of generating social change. A process involving various facilitators including agencies, institutions and social systems (Cajaiba-Santana, 2014). It represents a tool to operate in depth on the social structure, adopting mechanisms for the redistribution of fundamental material and immaterial resources and for the transformation of social relations, in particular local ones, through an empowerment process (Moulaert, 2009). It is therefore not only the social purpose that characterizes it, but the ability to create new relationships within social life (Mulgan, 2006), to transform the modes of action that underlie the problems themselves (Murray et al., 2010). Another perspective of analysis of social innovation places the concept of social value at the center of the definition, intended as to create benefits for society as a whole (Pol and Ville, 2009; Moulaert et al., 2013).

The paper considers the business model focused on social innovation as a "system of activities" (Bolton and Hannon, 2016) and social innovation depends on the interdependence between these that crosses the company and goes beyond (Zott and Amit, 2010; Cajaiba-Santana, 2014; van Wijk et al., 2019). So, in the analysis framework social change can derive from the recognition of the interdependence and complementarity between company and territory activities, from which a co-creation model of social innovation can derive.

The Territory - intended as a spatial, landscape extension, therefore aggregate of natural and anthropological, tangible and intangible elements - is a place of interactions, social relations, creation and dissemination of knowledge, production of specific skills and resources that cannot be found elsewhere (Kotler and Gertner, 2002). It also recognizes systemic components that have an

autonomous capacity to generate value and expectations in their survival path (Barile and Golinelli, 2008; Barile, 2011).

In this perspective, there is a need to redesign the approach in order to feed ties with local economies, their communities and cultures (Cacciolatti et al., 2015). In a vital context such as the territory, the behavioral dynamic aimed at the shared creation of value has to adopt participatory logics aimed at obtaining consent from the different actors (Iannuzzi, Bassano, 2003). And it is precisely the participatory logic facilitated by the exchange of knowledge (Maizza et al. 2019) that should inspire the path towards the social innovation of a territory because it's made up of structures that recursively stimulate the vital dynamics of individuals, families and organizations in the multiple contexts of the economy, the environment, the society (Elkington, 2013).

So, the research intends to analyze the motivational levers and their most suitable combination to start the path of social innovation shared between businesses and territory.

The applied theoretical model (Fait et al., 2019) identifies some fundamental variables for a shared social innovation process. It is based on a Fuzzy Expert System (FES) approach capable of generating a rating for the evaluation of the motivational system underlying the sharing. The model outlines the pre-conditions necessary for social innovation to go through a process of enhancement of the business-territory relationships. The key concept is that a single system (territory/businesses) arises from the recognition of the resources able to start a joint development oriented towards the creation of identity and vocation and to shape the territorial sphere as an original entity, difficult to replicate (Barile, 2012).

The model will be tested within the companies participating in the agri-food protection consortia, which represent an example of the creation, maintenance and management of organizational networks based on a relational heritage supported by the ambition and the desire to make known a territory, its products, its values and its culture (Maizza et al., 2015).

Following the research question, the theoretical-conceptual framework will facilitate the recognition of the motivational levers representative of the main drivers for the co-creation of social innovation. The research hypotheses deriving from it will be analyzed through a Fuzzy Expert System (FES) (Venturelli et al., 2016), in order to identify intermediate indicators of the phenomenon useful to understand the needed forces to define co-creation strategies of social innovation. The achieved results will allow to reflect on the motivational system that can represent a guideline for any governance that chooses to redesign social innovation in terms of sharing between businesses and the territory.

In particular, the values of the input variables of the social dimension suggest that social innovation cannot be separated from the enrichment of the relational system that characterizes a territory (Landry et al., 2002; Hauser et al, 2007). This is a process that takes place along two dimensions: a) the

regeneration of social capital; b) the harmony between personal and community expectations. Social capital finds the drivers of regeneration in the sharing of values and traditions and in the consolidation of trust among the actors of the territory; while the harmony of the cognitive dimension of social capital is achievable through the maintenance and attraction of human resources having skills in synergy with the values of the territory, as well as with sharing and participation in the planning process of the territory.

*Keywords: social innovation, knowledge sharing, brand-land, agrifood networks, social capital*

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## COVID-19 AND THE GLOBAL HIGHER EDUCATION SECTOR: IN SEARCH OF A NEW NORMAL

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### ABSTRACT

By the end of December 2019, the Chinese Government confirmed the infection of Covid-19 virus in human body in Wuhan province. Since then the Corona virus has been spreading out throughout the world. Initially, the East-Asian countries were listed as the most impacted countries by Covid-19 virus. However China, South Korea and Japan from this region have gradually been lessening the Covid-19 threat quite successfully in comparison to many western countries; the deadly virus has already triggered a global pandemic. Italy, Spain, USA, Germany, Iran and UK are some other countries who have been suffering so gravely for this Corona virus, alongside its blowing impact on all global regions. The number of confirmed and suspected Covid-19 infection and subsequent death has been increasing daily in all continents. By end of March 2020, in these three months, Johns Hopkins University in Maryland reported that nearly seven hundred thousand people are infected by this virus and more than thirty two thousand people have died globally, because of this pandemic. It indicates the severity of this virus, in terms of how appallingly it has been impacting on human life throughout the world.

Governments and civil societies across the globe have been struggling to deal with the changing circumstances resulting from this global massacre. In all sectors, organizational efforts are reached to its peak in an attempt to ensure the normalcy in public life at least to some extent. Especially, the efforts and contribution from the medical sector are truly admirable, considering that the doctors and nurses around the world have been serving the infected patients knowing that this deadly virus could be transmitted to them from the infected patients as well. In several ways, this effort to deal with this global pandemic and the consequent changes in private and professional life since last couple of months has been like no other month in many of our lifetime. But it has also been a time, in which all sectors have shown tremendous commitment, demonstrating what is possible to achieve through dedication and teamwork in a time of crisis. Following the inspirational efforts of the medical sector, all other public and private sectors across the globe have been working hard during this turbulent time, with an aim to mitigate the challenges at the intersection of Covid-19 threat and our daily life.

The global higher education sector is one of these many sectors that has also been working hard to bring back the daily life of students, educators and the aligned stakeholders to a 'new normal' – at least temporarily – as we do not know how long this global pandemic would persist, and at the end of the pandemic, how long it would take to return to the 'customary normal'. The activities delivered especially in the last few weeks in many western universities have been phenomenal. In recent weeks, classroom teaching and all kind of in-person interaction have been suspended almost in all western universities until further notice, in order to reduce the chance of dissemination of this noxious virus from one to another person. However, universities are not closed at all, and are attempting to undertake all possible measures to deliver their regular businesses. As a result, classroom teaching is replaced by online teaching. Thanks to the contemporary information-technology (IT) for its generous progress and contribution to the human civilization. The IT-enhanced virtual platforms have been playing an effective role to help the universities to run their daily operations, including teaching. This transformation has however considerably elevated the workload of IT-staff, educators and other management staff in universities; all staff-members have been working hard to deliver the day-to-day operations of their universities. Instead of classroom teaching, here in the UK, we are now teaching 100% online, based on the following methods:

- all lectures are recorded in Panopto and delivered via Blackboard;
- all interactive seminar materials and solutions are linked to Blackboard;
- through Blackboard Collaboration and Discussion Forum options, students and educators are able to interact online with each other to further discuss the lecture and seminar materials;
- undergraduate and postgraduate research students are regularly interacting with their supervisors through email, and meeting via Skype, Zoom or other online media.

This focussed work in support of the aforementioned IT-enhanced virtual platforms has enabled us to keep our University open for its regular business. At the same time, we are getting used to living our lives in a very different way, working remotely from home at least for the time being, and finding ways to balance this with looking after our own, and our families' wellbeing during this global crisis. On the one hand, during the last week of March 2020, the UK Government has announced that the restriction in public life because of this Covid-19 massacre would prolong for more than six months as we do not know when this pandemic would be clogged. On the other hand, some scientists proclaimed that the Covid-19 virus would remain active in the world around the year, considering that the outbreak would be under control in some part of the world during summer, whilst its impact

on some other part of the world would comparatively be higher where the season will turn to winter. We are hopeful that the vaccine for this deadly disease will be invented and will become widely available soon across the world, in order to permanently eradicate this disease from our beloved planet earth. Until that golden time, like many other sectors, the global higher education sector might need to increasingly adapt with the virtual platforms to run their operations. The positive side of this 'new normal' in universities is it ensures the social-distance between students and educators to reduce the chance of dissemination of Covid-19 virus, while delivering teaching and learning activities. Since Internet use has been increasing in all types of economies and social settings; this IT-enhanced 'new normal' of the western universities would be an effective option for the universities across the globe to run their operations, at least until we return to our 'customary normal'.

*Keywords: Higher education, Covid-19, pandemic, new normal.*

# THE IMPACT OF THE ECONOMIC CRISIS ON THE PERFORMANCE OF GREEK TEXTILE COMPANIES

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## ABSTRACT

### PURPOSE

In Greece, textile industry has been a cornerstone of production. During the period 1930 to 1980 it was the most important industrial sector, with significant growth rates. After 1980, Greek textile industry has been severely affected by international competition from third countries and high non-wage labor costs.

Today, textile industry in Greece has shrunk dramatically and perhaps more than any other country in the European Union despite the fact that it has a competitive advantage, "Greek cotton".

Textile industry is still an important sector interconnected with agricultural sector, the cotton production. Greece holds the 8th and 9th place in the world cotton market in the last 20 years. Greece is the EU's main cotton grower, accounting for more than 80 percent of total European production (Faniadis, 2019).

This research attempts to examine the impact of the economic crisis on the performance of Greek textile companies by analysing financial statements.

### DESIGN/METHODOLOGY/APPROACH

Textile industry declined by 49.5% from 2009 to 2017 and employment declined by 49.9% for the same period while prospects are worsening (IOBE, 2019). Previous studies examine mainly "how" and "why" of an industry (Kalogirou and Panagiotopoulos, 2015).

According to Bryman (2004), research must be based on two elements, the theoretical background that is relevant to research, and the empirical.

Empirical analysis of this research is based on financial ratio analysis, SWOT analysis of Greek key textile companies operating in the domestic and international market, relied essentially on published financial statement data, collected for the period 2015-2017.

During 2018-2019, cotton production is estimated at 1.41 million bales, up 16.2% from previous season due to favourable weather conditions during harvest and good yields.

According to the Greek Association of Textile Industries (Faniadis, 2019), the Greek textile industry has been suffering during 2018-2019 from increased third-country imports (mainly from China, Pakistan, and Turkey), causing a sector shrank (meaning that financial data were the same or worst than previous years examined in this research).

The sample companies selected up to now in this research, on the basis of differentiation in the field of production as well as years and experience in the Greek industry. The three most important key companies in the sample are small and medium-sized and flexible so they can respond more quickly to domestic and international changes.

## **FINDINGS**

The results up to now show that the three most important key textile companies are flexible and can respond more quickly to market changes. In order to deal with the recession, more emphasis placed on 'entrepreneurship', 'innovation', 'exports' and 'modern education'.

The results of the SWOT analysis of the textile industry, helped to better explain its financial data. Companies are small to medium size, with a flexibility on the Greek economic crises, with raw material availability ("Greek cotton"), taking advantage of "made in EU" products.

On the other hand, there is a high cost of money (high bank interest rates), lack of long-term national policy for "Greek cotton" and low investments to replace existing machinery.

Finally, the future depends on the ability of each company to adapt to the new market conditions, domestic and international, by producing specialized and innovative products at competitive prices. Low labour costs are not the solution.

There is a need for a change of philosophy, shifting from the production of cheap products to producing quality and innovative products.

## **RESEARCH LIMITATIONS**

Financial data collected up to now, limit industry suggestions. More companies and financial statements are necessary and will be examined in future research.

## **PRACTICAL IMPLICATIONS**

In the past decades there were more than 300 textile companies in Greece, with 170,000 employees and today, companies do not exceed 170, with 60,000 employees. Research will benefit textile industry and employees in Greece by presenting areas of opportunities and weaknesses and finally propose measures to safeguard their viability.

More specifically, viability and growth of Greek textile companies for the coming years should be based on the following pillars:

- Development and use of innovative technologies
- Human Resources Training
- Vertical production lines allowing for increased specialization of products
- Long-term relationships with partners and end-users
- Dynamic development and investment in the vertically integrated production line
- Effective customized product development structure
- Cost-effective corporate structure and operation
- Focus on Environmental Protection and the sustainable development model.

Above can be a reality, with a business plan for the textile industry that must be based on the following pillars:

- Export development
- More capital and liquidity for companies
- Enhancing competitiveness
- A prerequisite for enhancing competitiveness is the gradual reduction of corporate taxation and the reduction of non-wage costs in order to stimulate employment.

## **ORIGINALITY/VALUE**

The originality of this work, when will be finished, is that will offer new knowledge by evaluating Greek textile companies.

*Keywords: Textile industry, Greece, Financial Statement Analysis, SWOT Analysis*

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## CASH FLOW MANAGEMENT AS A CRITICAL FACTOR ON BUSINESS EFFICIENCY – STUDY ON PSI 20 COMPANIES

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### ABSTRACT

Nowadays, the economic environment has been demanding from companies a continuous efficiency regarding financial management.

The cash flow statement provides its users with a basis for identifying and assessing the organization's ability to generate and use its financial flows. The financial statements allow you to extract information that reveals your operations during a certain period of time, and when analyzed, they help to form a strong and sustained strategy, allowing you to detect the strong and weak aspects and thus collaborate in decision making.

The analysis of cash flows allows the manager to understand the need, whether or not, to obtain a loan, or apply the surplus cash in profitable operations in order to provide a balanced cash flow (Oliveira, 2017).

**Table 1: financial management concept**

|                      |   |   |
|----------------------|---|---|
| Financial management | In the medium and long term (business strategy)                       | <b>Politics:</b><br>- investments<br>- financing<br>- distribution of results |
|                      | Short-term or broad-based treasury management (operational decisions) | <b>Management:</b><br>-current assets<br>-short-term debt                     |

Source: page 16, Neves, J.C.D (1989). *Análise financeira: métodos e técnicas*. Lisboa: Texto Editora

The role of the financial manager is crucial to the day-to-day life of a company. All decisions made in the short term can truly affect the financial situation of the organization, so it is essential to carry out an effective treasury management (Menezes, 2001).

The budget is a support tool for achieving the defined objectives (Jordan, Neves and Rodrigues (2008). Financial planning is nothing more than a document that is framed in the long-term objectives and, of course, in the organization's mission.

According to Malhotra (2006), in the case of qualitative research, this aims to provide a greater view and understanding of the context of the problem and also explains the results obtained by quantitative research. This is the path we will follow.

Efficient cash flow management is important for business strategy. The research questions that arise are: Does the efficiency of cash flow management allow for its balance? Does the cash flow budget translate into a crucial factor for business efficiency? How does cash flow management translate into a competitive market advantage?

The main objective of this article is to study the PSI 20 companies, analyzing management reports in order to highlight the importance of treasury management and how the demonstration of cash flows in the daily lives of these organizations complement decision making.

The possible limitation is the universe of companies we are going to use and a possible suggestion for future works is compare the situation of Portuguese companies with other countries.

*Keywords: Cash Flow management, Cash Flow Statements, Efficiency, Decision making*

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# DETERMINANTS OF INTERPERSONAL TRUST IN VERTICAL AND LATERAL RELATIONSHIPS: DIFFERENCES IN INDIAN MANUFACTURING AND SERVICE ORGANIZATIONS

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## ABSTRACT

This study was conducted in an exploratory framework using survey research to examine the antecedents of Interpersonal trust within manufacturing and service organizations. The data was of 303 employees was studied through regression analysis to identify the determinants of interpersonal trust at workplace. The results linking individual level variables and the dimensions of interpersonal trust provide greater insights into the factors which were important in determining trust in lateral (trust in colleagues) and vertical (trust in supervisor) dyadic relationships. Trust in colleagues was predicted by interaction frequency and consistency in behaviour shown by the colleagues for the sample belonging to manufacturing sector. The results for service sector showed that interaction frequency, consistency in behaviour, and technical competence of colleagues were considered important in determining trusting relationship with the colleagues. Therefore, factors which consistently contributed to the development of trust across different sets of the sample were interaction frequency with colleagues, and behavioural consistency of the colleagues.

Trust in supervisor was determined by competence and consistency in behaviour shown by the supervisor for the overall sample and the service sector. However, findings of manufacturing sector indicated that behavioural consistency was the only factor which influenced trust in supervisor. Therefore, a clear picture which emerged was that behavioural consistency was unanimously considered important apart from other factors, in determining trust in both lateral (colleagues) and vertical (supervisor) dyadic relationships, across overall, manufacturing, and service sectors. The findings provide relevant implications for industries to engender trust for greater organizational performance.

*Keywords: Interpersonal trust, lateral trust, vertical trust, manufacturing and service sector, India*

## THE IMPACT OF IFRS AND THE CORPORATE GOVERNANCE PRACTICES ON THE FINANCIAL REPORTS IN THE BANKING SECTOR

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### ABSTRACT

The financial system consists without doubt one of the most important determinants of the world national economies. The changes and challenges that the financial institutions face have a great impact on the economic growth prospects of a country and the configuration of the economic environment of each domestic economy (Chen et al., 2010). A healthy economy needs a stable financial system in order to convey capitals from the surplus economic bodies to the deficits ones in order funds to be invested in the productive process. The structure and the function of the financial sector differentiate from country to country widening the range of various possible forms that financial institutions could have. However, the banking sector within any economy is the major source for economic growth and trustee of financial stability. The banking sector goes at the very heart of the financial system and its influence on national economies is pivotal, because available funds are filtered through it to the economy for investment. The purpose of the current paper is to investigate the extent to which the implementation of International Financial Reporting Standards (IFRS) accompanied by Corporate Governance practices have affected the quality of financial and narrative reporting produced by banks. The study uses a sample of 14 commercial Greek banks and investigates their reports and performance for the period from 2008 to 2011 that includes not only the burst of global financial crisis, but also the start of the Greek sovereign debt crisis.

The purpose of the current research is to examine the extent to which the implementation of International Financial Reporting Standards (IFRS) as well as Corporate Governance practices have affected the financial and narrative reporting in the Greek banking sector. The European Community Regulation No. 1606/2002 required all EU listed companies to prepare their consolidated financial statements in accordance to IFRS as from 1<sup>st</sup> January 2005. The rationale is that the development of global financial markets demands harmonization and standardization of accounting standards (Jermakowicz, 2004); namely, a common language for financial reporting. Besides, one of the objectives for the International Accounting Standards Committee (IASC) after the implementation of

generally accepted accounting standards was the improvement of accounting quality (IASB, 1989). The debate on the requirement to adopt generally accepted principles in reporting has its roots to the importance of the characteristics of individual markets and institutional frameworks to determine accounting standards (Chen et al., 2010). However, advanced quality standards do not necessarily provide high quality reporting and it is the existence of incentives and institutional influences that positively contribute to it (Ball et al., 2003). This study investigates the impact of the IFRS mandatory adoption in a typical code-law European country such as Greece focusing exactly on the period that global financial crisis began. The focus on banks is justified due to the significant role they play to the economy and development and the major impact of IAS39 to their financial reporting. Also, global financial crisis has increased the need for additional measures for quality reporting for the protection of institutions, financial markets and stakeholders. Such measures are grouped into Corporate Governance best practices; thus, we investigate their implications to quality reporting together with IFRS.

The rationale for the study is to make inferences regarding the quality of reporting and whether the IFRS and Corporate Governance practices offered quality information to stakeholders. The originality of the study rest on that it uses the case of Greece for a period that incorporates both the burst of global financial crisis and the beginning of the Greek sovereign debt crisis. Also, the banking sector suffered from severe pressure during this period edue to its interrelationship with the financial and debt crisis. In addition to the above, we explore the influence of IFRS to provide quality information to stakeholders through published reports. Moreover, we test whether corporate governance practices adopted by banks could contribute either alone or in conjunction with the adoption of IFRS to enhancing the quality of information provided through the published statements.

Firstly, we explore the impact of IFRS to the financial statements of the Greek Banking sector. A research of Paglietti (2009) mentioned that, after the implementation of IFRS, Return on Assets (ROA) increased as observed from financial reports and the ROA indicator represents how effectively a business has been using its operating assets. The purpose of the examination of ROA is to observe if there is an impact on the Greek banking sector prior and after the IFRS implementation. Moreover, we include Corporate Governance variables into our analysis. Specifically, we test the number of independent board members, the diversity of the board (male-female members), the performance of audits by an external auditor, the audit committee independence, and the audit committee expertise relative to their impact on quality of reporting and the value as perceived by investors.

We also compare the amount and type of narrative information disclosed in Management Commentary Reports for the period 2008-2011. Management commentary reports were analysed using a question checklist proposed by the International Accounting Standards Board in 2005. The

question checklist (Management Commentary Scoring Sheet) includes 5 categories of analysis; Category 1: the nature of the business, Category 2: objective and strategy, Category 3: key resources, risks and relationships, Category 4: results and prospects and Category 5: performance measures and indicators.

Research results regarding corporate governance variables are consistent with the expectations. We found that *Board Diversity* measured as the number of female and foreign culture representatives to the board was positively associated with the quality of reporting indicating that banks with mixed boards of directors had a propensity to produce reports with increased amount of details regarding their performance. The data also revealed the positive contribution of *Audit Committee Expertise* (measured with the existence of at least 4 financial experts of SOX) and *Audit Committee Independence* (measured as the % of independent audit committee members) with the decision to include information on performance significantly improving the quality of reporting. Moreover, our analysis indicates a positive relationship between the quality of reporting and the performance of *External Audits* by an experienced auditor in the field of CSR/Health and Safety/Sustainability. Contrary to the above, we found that *Independent Board Members* variable was negatively related the quality of reporting in the sense that as the percentage of non-executive board members was increased, the quantity of narratives in reporting was decreased deteriorating the overall reporting quality. On the same grounds, our results indicated an inverse relationship between profitability (measured in terms of ROA) and quality reporting. Specifically, we found that an increase in the profitability of a bank through the years from 2008 to 2011 was negatively related to the quality of reporting produced.

The current project analyses the financial reports of fourteen Greek commercial banks for the period that ranges from 2008 to 2011. This period includes the burst of global financial crisis as well as the beginning of the Greek sovereign debt crisis. The analysis includes the exploitation of the most important financial figures and the investigation of the quality improvement presented into published financial reports. In order to conduct the financial examination, we analyze the consolidated financial, profit and loss and cash flow statements. These statements were derived from Datastream database. The selection criteria of the financial institutions are based on the consistency of its largest and most credible banks operating in the Greek economy, which account for 14 banks.

*Keywords: International Financial Reporting Standards, Corporate Governance, Reporting Quality, Banking, Crisis.*

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# THE EFFECTS OF COMPLIANCE WITH INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM PRINCIPLES ON OPERATIONAL PERFORMANCE OF ITALIAN COMPANIES

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## ABSTRACT

Although the scientific community has widely recognized the importance of the Internal Control and Risk Management System (ICRMS) as an internal corporate governance mechanism useful from different perspectives for the creation of business value, many conclusions are still controversial and different aspects still remain unexplored (Chalmers et al., 2019). Contrary to what is found in the US landscape, where there are numerous theoretical and especially empirical contributions on the positive relationship between the Internal Control System (Over Financial Reporting) and business (operational and financial) performance, in the European context there are still very few studies analysing the economic effects of the ICRMS. Especially the European contributions relating to the particular relationship between ICRMS and business operating performance seems almost non-existent. The European context notoriously characterized by less enforcement of shareholder protection than those studied so far, has been recognized worthy of further study by the scientific community (Chalmers et al., 2019). Furthermore, the different legislative (Deumes and Knechel, 2008; van de Poel and Vanstraelen, 2011) and cultural connotations (Hooghiemstra et al., 2015) assumed by the internal control system in each country, which seem to play a fundamental role, force us to a national based analysis. The aim of the work is to analyse the relationship between the so-called “compliance or explanation” with the best practices recommended by the Corporate Governance Code relating to the ICRMS and the operational performance of Italian listed companies. The Italian context is an excellent representative example of the majority of the countries that make up the overall European panorama as it has typical characteristics, such as the principle based approach and a weak market system in protecting investors. For this purpose, an OLS regression model is implemented considering appropriate robustness control and check variables to reduce possible distortions typically present in problems relating to the relationship between corporate governance and performance. The degree of compliance with the recommendations of the Corporate Governance Code inherent to the ICRMS is broadly understood as “compliance or explanation” (Rose, 2016; Arcot and Bruno, 2006). It is appreciated through a constructed score. The latter provides for the implementation of a content analysis of the annual corporate governance reports of the sampled companies. The validity and reliability of the results of the related coding process are verified by appropriate tests

generally used in this type of analysis (Krippendorff, 2004; Mackey and Gass, 2005). Operational performance is intended as an indicator of management's ability to make optimal choices in managing the business. Consistently with the major literature on the subject, it is measured with ROA. The reference period covers two years (2015 and 2018) in order to capture the changes in governance, albeit relative, subsequent to the main regulatory innovations regarding internal control and risk management. The work is believed to contribute to the national and international debate relating to the relationship between corporate governance and performance, compliance with the Corporate Governance Codes, the economic effects deriving from the application of the ICRMS and the consequences of reporting in scenarios dominated by the voluntary disclosure. We want to check whether the application of these recommendations aims at a substantial improvement in investor protection, an increase in the efficiency and effectiveness of management operations and the safeguarding of corporate assets as supported by the Committee of Sponsoring Organizations of the Treadway Commission (CoSO, 2013). It is also useful for policy makers, practitioners and market agent to verify whether the adoption of the recommendations of the Corporate Governance Code regarding internal controls represents a mere "tick the box" exercise driven by reasons for legitimizing the action of companies on the global market - as typically happens in civil law countries - (Arcot and Bruno, 2006; Zattoni and Cuomo, 2008), or is aimed at concretizing the participation of companies in the sustainable development of the economy.

*Keywords: internal control and risk management system, operational performance, corporate governance code, comply or explain, disclosure, listed companies.*

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## A "BIBLIOMETRIX" REVIEW OF MANAGEMENT CONTROL

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### ABSTRACT

In recent years, researchers, academics, practitioners, and stakeholders have begun to question the causes of the gap between theory and practice in Management Control field due to the misalignments between the innovations brought by academics (Johnson and Kaplan, 1987) and the changing in the control needs that made management control's tools obsolete (Nixon and Burns, 2005). The need of new frameworks more adherent to current conditions has become pressing (Otley, Broadbent and Berry, 1995; Langfield-smith, 1997; Nixon and Burns, 2005; Malmi and Brown, 2008; van Helden and Reichard, 2019;Chenhall, 2003). Therefore, the huge proliferation of theoretical contributions carried to an overwhelming mole of theoretical conceptualisations that has led the management control literature to trickle through further different control-related fields (Anthony; 1965; Lowe, 1971; Ouchi, 1979; Flamholtz, 1979; Otley and Berry, 1980; Daft and Macintosh, 1984; Abernethy and Chua, 1996; Otley, 1999; Chenhall, 2003; Merchant and Van der Stede, 2007; Malmi and Brown, 2008; Ferreira and Otley 2005, 2009; Strauß and Zecher, 2013) and to lose comprehensive homogeneity and coherence. According to Ramos-Rodríguez & Ruíz-Navarro (2004), "Once a scientific discipline has reached a certain degree of maturity, it is common practice for its scholars to turn their attention towards the literature generated by the scientific community and, treating it as a research topic in its own right, to conduct reviews of the literature with a view to assessing the general state of the art". On this premises, our purpose is to provide both an overview and detailed key findings in the management control's research. This could shed light on aspects related to the current fragmented literature and lead researchers to appreciating what has be done so far and what has to be done, taking their own reasonable conclusions. This work aims to contribute to research on Management Control by carrying out a bibliometric analysis of the extant Management control literature through common science mapping techniques. It provides a descriptive analysis of the relevant contributions and results of a science mapping study on the conceptual, intellectual and social structure of the Management Control knowledge. Thus, conceptualizations, sources of knowledge, and community networks are considered basic. Conceptual, intellectual, and social interrelationships have been intercepted, so that a reconstruction of the management control debates in terms of academic research production has been coped with. A further theoretical contribution has been given by the identification of the main themes orbiting this field. So that it is possible to obtain information about the impact that the Management Control research has had outside the specific research field panorama or consolidated communities.

Hence, bibliometric techniques have been implemented, by using a package in the R environment. In order to perform our bibliometric analysis, we apply a standard science mapping workflow (Zupic and Cater, 2015; Cobo et al., 2011, 2014; Aria and Cuccurullo, 2017). The analysis follows a protocol that not only makes the process traceable (Liberati et al., 2009) and verifiable, but minimizes probable distortions (Tranfield, Denyer and Smart, 2003; Schmeisser, 2013; Durach, Kembro and Wieland, 2017). Analysis object is characterized by a sample of papers extracted from Scopus. In order to ensure a high quality level of research, the extraction criterions include the exclusive inclusion of the main journals indexed according to the Academic Journal Guide 2018 published by the Chartered Association of Business School.

*Keywords: Management control, Management control system, Bibliometrics, Review, Science mapping*

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# VALUE CREATION WITH PROJECT RISK MANAGEMENT: A SYSTEMATIC LITERATURE REVIEW

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## ABSTRACT

## INTRODUCTION

Project Risk Management (PRM) is a systematic process that aims to identify and manage risk, implementing systems and procedures to identify, analyse, evaluate and address risks inherent in any project (Raz and Michael, 2001). PRM is one of the major approaches implemented by companies to achieve success in their projects (Elkington and Smallman, 2002). In recent years PRM is increasingly seen as a value creation process for companies. Indeed, recent directions of ISO 31000: Risk Management and COSO framework (Committee of Sponsoring Organizations of the Treadway Commission) are giving greater relevance to value creation and protection, changing the traditional focus on adversity and extending the view also to potential positive effects of risks (ISO 31000, 2018; COSO, 2017). Within these standards, there is a basic and underlying assumption that PRM creates value; however, both standards remain silent concerning any definition or explanation of this *value* (de Pooter, 2019). Extending the view to the empirical literature on PRM, it can be noticed that value created with PRM is often associated to project outputs and outcomes, increased probability of project success and other strategic and organizational benefits, and value creation is often related to PRM best-practices. Nevertheless, empirical results range between extreme opposites, showing significant discrepancies, even when results are compared with standards and normative best-practices (Willumsen *et al.*, 2019). The purpose of the study is to foster PRM knowledge and to support companies to enhance value capturing from their own projects and the whole organization, in relations to benefits generated through PRM, when compared with the costs of its implementation (what is value), to project stakeholders' perceptions and expectations (to whom is valuable), and to which contextual factors affect value creation and capture (where/when value is captured).

## METHODOLOGY

In order to perform both a descriptive and a content analysis about value creation through PRM, a systematic literature review has been performed and accomplished based on the guidelines proposed by Macpherson and Holt (2007) and Tranfield, Denyer and Smart (2003), adapted to this specific

research, between November 2019 and February 2020. A database (DB) containing the works available in the literature on the topic has been created, evaluating the quality of publications, in order to obtain a value result. To build the DB, the two most widespread databases for searching the literature were used: *Scopus of Elsevier* and *Web of Science Core Collection (WoS)* by *Clarivate Analytics* (Guz and Rushchitsky, 2009). Different sets of keywords were used, combining the terms “*Project Risk Management*”, “*Project Management*”, “*Value Creation*”, “*Value Management*”, “*Benefits*” and “*Performance*”, filtering on time period (years from 2004 to 2020), document type (only journal articles and reviews), language (only papers in English), and relevant categories related to Management, Engineering, Business and Economics fields. To narrow down the results, a selection process was performed using the following filters: exclusion of journals not classified in Q1, Q2 or Q3 quartiles by *WoS* and journals not classified in Q1 or Q2 quartiles by *Scopus*, and exclusion of duplicated articles among the results of the queries and between the two databases. At this point, 254 articles were obtained, but they needed to be analysed more carefully. To do so, the abstract and further the full text of the papers were read, excluding those not related to value creation with PRM and/or not applying a scientific approach; the final DB contains 65 papers. The descriptive analysis performed showed that there has been a growing interest on the theme, and that 61 authors from 26 different countries have contributed to the topic in the last 15 years, particularly from UK (18%), USA (8%), Australia (8%), Finland (8%). The more considered sectors are those where companies are traditionally project-oriented, in particular Construction (30%), ICT (12%), Energy & Engineering (7%), Manufacturing (7%) and Professional Services (7%). The most engaged journals are *International Journal of Project Management* (35%) and the *International Journal of Managing Projects in Business* (17%). Following the descriptive analysis, the content analysis was performed considering: a) level of analysis (who/what creates value and to whom, at customer level, company level, project level, ecosystem level and society level), b) content perspective (what is value), c) process perspective (how value is created and captured), d) contextual factors (which factors affect value creation and capture), e) stakeholders perspective (what is valuable to stakeholders), and f) value measurement (how value could be measured). These analyses have allowed identifying the relevant factors that must be taken into consideration for the subsequent development of the research, the gaps in the literature and the potential future developments.

## RESULTS AND CONTRIBUTIONS

Analysing PRM literature through the lens of value creation, it emerges that value content is often associated to project’s outputs and outcomes, and to other strategic and organizational benefits, while the value creation process is related to PRM best-practices (Willumsen *et al.*, 2019). The findings suggest

that the conflicting results on PRM value creation are due to different and interlinked reasons. First, there is not a consensus among researchers on how to define and measure value created with PRM (Lee, Tommelein and Ballard, 2013; Mir and Pinnington, 2014; de Carvalho and Rabechini Junior, 2015; Serra and Kunc, 2015; Furlong *et al.*, 2017; Hjelmbrekke, Klakegg and Lohne, 2017; Perrenoud *et al.*, 2017; Santos, Gaspar and Schiozer, 2017; Choi *et al.*, 2019; Willumsen *et al.*, 2019; Green and Sergeeva, 2019; Laursen and Killen, 2019). Furthermore, considering the complexity of projects, it is not easy to proof to what extent PRM has influenced the manifestation of uncertainty, and if there are also other compounding or contextual factors (Besner and Hobbs, 2012; de Carvalho and Rabechini Junior, 2015; Willumsen *et al.*, 2019). In addition, stakeholders have conflicting interests and subjective perceptions, thus they cannot truly consider the value and appropriateness of a result without understanding its relevance in a specific context (Lepak, Smith and Taylor, 2007; Martinsuo and Hoverfält, 2018; Smyth, Lecoivre and Vaesken, 2018; Green and Sergeeva, 2019; Laursen and Killen, 2019). Finally, repeatability is a critical factor, considering that each project has its unique characteristics and it is difficult to reproduce. Moreover, value created with PRM has many dimensions, even beyond the conventional economic perspective, including intangible elements. Indeed, value created impacts customer satisfaction and trust (Neap and Aysal, 2004; Winter and Szczepanek, 2008; Voss, 2012; Zaveckaite and Ulbinaite, 2018; Chih, Zwikael and Restubog, 2019; Choi *et al.*, 2019; Fuentes, Smyth and Davies, 2019), enhance quality of strategic evaluations (Sanchez *et al.*, 2009; Rohaninejad and Bagherpour, 2013; Mir and Pinnington, 2014; de Carvalho and Rabechini Junior, 2015; Hjelmbrekke, Klakegg and Lohne, 2017), improve decision-making (Ellis, Wood and Keel, 2005; Hwang, Zhao and Toh, 2014; Furlong *et al.*, 2017; Santos, Gaspar and Schiozer, 2017; Shojaei and Haeri, 2019), and enables other management processes within the organization, that in turn influence project's outcomes creating indirectly additional value (Wang, Lin and Huang, 2010; Andersen, 2016; Javani and Rwelamila, 2016; Zou, Kiviniemi and Jones, 2016; Chen *et al.*, 2019; Willumsen *et al.*, 2019). Finally, the time dimension is also relevant, considering that value creation process produces its effects even beyond project's time horizon (Chang *et al.*, 2013; Badewi, 2016; Smyth, Lecoivre and Vaesken, 2018). This work has the goal to define a framework for PRM value measurement, in order to compare both economic and intangible benefits with costs of its implementation, and to validate it through multiple case studies. This work will give guidance to managers on how to maximize value capturing from their projects and the whole organization, contributing to foster PRM knowledge and providing indications to researchers about future directions

*Keywords: Project Risk Management, Project Management, Value Creation, Value Management, Literature Review.*

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## A NEW PERSPECTIVE ON LEADERSHIP, TRUST AND INTERNAL NUMERICAL FLEXIBILITY

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### ABSTRACT

Nowadays companies allow employees to work autonomously and flexible (Smith et al., 2018), which is supported by enabling information and communication technology, so employees can work from nearly everywhere they want to (Kingma, 2016). Moreover, recent studies show that 67.4 percent of employees request to have this opportunity, but only 43.4 percent of the companies provide it (Weitzel et al., 2019). This is in line with the statement of Rubery et al. (2016) pointing out that conditions of work are becoming increasingly more flexible.

Following the innovative research stream of Nordbäck et al. (2017), Whyman and Petrescu (2015) and Mesu et al. (2012), the aim of this research is to investigate and explain the nature of relationships between leadership, trust, performance and internal numerical flexibility. In addition, this research intends to cover the existing research gap as to the level of workplace flexibility practices in SMEs (Kotey, 2011) which is currently still under-explored (Whyman and Petrescu, 2015). Therefore, the general research question is: How do leadership and trust affect internal numerical flexibility? To answer this question, initially an exploratory qualitative research design will be set up. CEOs and/or CHROs will be interviewed through semi-structured expert interviews. The new insights will be used for the validation of an existing initial conceptual framework, derived from a literature review. This study on a strategic human resource management topic will be conducted mainly in German SMEs, as 99.5 percent of German companies are SMEs (Eurostat, 2020), but enhanced by participants from larger companies since these often include professional human resource management (Lepak and Snell, 2002). There will be so many interviews until a theoretical saturation is reached (Charmaz, 2006). No comparable qualitative study was found what underlines the originality and value of this research.

It is expected that relevant insights on the theoretical perspective will be uncovered, e.g. on the nexus between information and communication technology, leadership as well as internal numerical flexibility. Moreover, managerial findings – like how trust among remote-working employees affects them – are anticipated due to the fact that semi-structured interviews will be conducted with managers of companies.

*Keywords: internal numerical flexibility, leadership, trust, performance, (strategic) human resources management, new ways of work*

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# HEALTH LEAN MANAGEMENT IN EMERGENCY DEPARTMENT: A SYSTEMATIC LITERATURE REVIEW

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## ABSTRACT

## INTRODUCTION

The healthcare service faces sustainability issues over time, managing ageing population and growing quality care expectation, despite heavy restrictions on budgets (Dickson et al., 2009;). With the aim of satisfying the customer demand, balancing safe, reliable and affordable care with efficiency, Lean Management (LM), a methodology derived from Toyota Production System, has been increasingly adopted in many healthcare organizations, to improve the value delivered to the patient by reducing waste and inefficiencies (Radnor et al., 2012). Emergency Department (ED) revealed to be one of the most critical area, with overcrowding, process delays, high costs and patient dissatisfaction as major concerns (Bucci et al., 2016). In this regard, lean healthcare management seeks to increase ED performances, focusing on patient flow and eliminating nonvalue-added activities, with no additional resources (Holden, 2011). Literature reports a wide evidence of LM adoption in ED (Hallam and Contreras, 2018), as the pioneer department, documenting positive effects on process capacity, reactivity and efficiency, on turnaround times and length of stay, on care quality and patient safety (Mousavi Isfahani et al., 2019). Although LM in EDs has demonstrated its potential on improving healthcare management, further studies are needed to assess its effects on performance and on patient care (Borges et al., 2019; Ramori et al., 2019). In particular, there is limited empirical research evaluating how a manufacturing methodology has been adapted to the healthcare sector (Hallam and Contreras, 2018). For this reason, this study aims to analyze how LM projects have been developed in EDs, investigating the pursued objectives, the adopted tools, the performed tasks, the systematically achieved improvements and the key factors required for a successful implementation.

## METHODOLOGY

In order to pursue the research objective, a systematic literature review has been conducted following the PRISMA Statement (Liberati et al., 2009). A bibliographic searching in Scopus, Pubmed and Web of Science databases allowed to identify 452 articles referred to the different combinations of the following keywords: "lean management", "lean thinking", "lean healthcare", "kaizen", "patient

flow", "lean methodology", "lean tools", "lean techniques", associated with the Boolean operator AND to "(emergency department OR emergency room)". According to the inclusion criteria, only papers written in English language, classified as articles or reviews and coherent with subject area filter were selected for further examinations. After the exclusion of duplications, 149 articles were submitted to a title and abstract analysis, in order to preliminarily evaluate their consistency to the investigation question, eliminating 81 documents not referring to ED as the application context or to LM as the main managerial technique adopted. Finally, the full-text articles accessed for eligibility were reviewed in relations to their relevance and to their compliance to case study methodology inclusion criteria, excluding literature reviews, theoretical papers and articles developed in less than 3 pages. The remaining publications were screened according to the following inclusion criteria: firstly, the adequacy of project setting, eliminating papers focused on specific departments or clinical pathways, without considering the global effects on ED performances; secondly, the adoption of a structured approach in implementing LM, with a developed methodology comprehensive of an adequate description of the followed tasks and a proper tools application; lastly, the objectives coherence between literature research and the case study analyzed. Finally, 28 papers have been retained for the final database. A descriptive and content analysis have been conducted on the extracted database.

## RESULTS

The descriptive analysis highlighted the growing diffusion of LM in EDs in the last five years, especially in USA, Italy, UK and Lebanon, underlining the novelty of the phenomenon. The quality of the database was assessed through the Scimago Journal Rank (SJR), revealing that the 87% of the journal papers were published in Q1 and Q2 journals. The theme was studied in medical (79%) and in engineering (13%) journals, confirming the interest of both scientific communities in its future potential development. The content analysis was performed investigating the projects developed to implement LM in ED. It focused on the motivations underlying the adoption of LM in ED, the pursued objectives, the followed methodology (organizational and managerial aspects) to set and achieve the project objectives, the applied LM tools, the obtained quantitative results and the key success factors. The literature review showed how overcrowding, inefficiency, low quality care, unsatisfied patients and high costs represent the most critical aspects afflicting ED performances. These critical issues pull the system towards an engineering reorganization process, driven by the aim of improving patient flow, efficiency and safety, reducing waiting times and wastes, to better manage patient volume and access block. Although the experiences heterogeneity highlighted the lack of a standardized methodology to adopt LM in ED, the analyzed literature provided an evidence of the

relevance of a systematic approach, developed, in most cases, in a first phase of in-depth preliminary planning, team creation and goal definition, in a thorough process mapping phase that leads to the individuation of the root causes and the improvement ideas, in implementation tasks and finally in standardization, maintenance and monitoring activities. Many authors focused on the importance of properly applying the LM techniques in each context, adapting a structured methodology to the specific needs and goals, and choosing the most suitable tools according to the stage of the project life cycle. In this regard, the authors showed the large variety of LM tools, where Value Stream Map constituted the most used, followed by kaizen event, root cause analysis and visual management techniques, while tools frequently employed in manufacturing industry, as kanban and heijunka, are still underexploited in healthcare. The literature review illustrated how the growing diffusion of LM adoption in ED is supported by successful results concerning efficiency, productivity and quality of the service, in addition to a reduction of costs and needed resources. The totality of case studies demonstrated improvements on decreased length of stay and waiting times throughout the process, on increased patient volume and on patients and employees overall satisfaction.

The current analysis allowed to identify the key factors that enable the success of a LM project:

- The importance of creating multidisciplinary project teams, trained on LM principles and skilled in problem solving (Verbano and Crema, 2019), to empower the ED frontline staff in an active participation to the improvement process (Kane et al., 2015) and to include all the stakeholders involved (Hitti et al., 2017);
- The value of good and effective communication to share real-time information and make the system reactive to changes (Arbune et al., 2017);
- The essential role of leadership support to create and spread the LM philosophy among employees, acting as a role model in the paradigm shift towards a continuous improvement long-term view (Cookson et al., 2011; Vashi et al., 2019);
- The structuring of improvement projects in specified tasks, and in small and simple changes, effectively developable by ED employees (Arbune et al., 2017);
- Adoption of an holistic approach in implementing LM to take into consideration the effects related to the improvement project on the entire value stream (Elamir, 2018).

The adoption of LM in ED is still in its early stage, showing the lack of a standardized project development and of a shared methodology to apply techniques and tools. This paper provides a contribution from an academic point of view by presenting an overview, missing in the current literature, on how to structure a LM project in ED, with the purpose of identifying a standardized framework for implementation in healthcare. From a managerial perspective, the analysis of the published case studies allows to identify the best managerial practices and guidelines to support

healthcare managers in developing successful LM projects. The latter should be performed adopting an improvement approach founded on employee involvement, on creation of solid processes and on introduction of small cycles of changes. Based on the guidelines developed thanks to this study, other research could be performed applying the framework for developing projects in healthcare and comparing its implementation in diverse settings. Moreover, other research should be conducted in the future, for example in order to investigate statistical correlation between LM and the obtained results, but also to diffuse a system culture oriented towards kaizen. The complexity of the ED service opens up to emerging challenges that could be managed and solved through the adoption of new organizational and managerial approaches, improving the management of healthcare and the satisfaction of internal personnel and of the community in general.

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*Keywords: Emergency Department, Emergency Room, Lean Management, Lean Healthcare, Lean Thinking, Literature Review.*

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## THE INFLUENCE OF SOCIAL CAPITAL ON THE PERFORMANCE OF OPEN INNOVATION PLATFORMS

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### ABSTRACT

Since the rise of Open Innovation (OI hereafter) paradigm (Chesbrough, 2003), many scholars have investigated its effects on company performance or strategies (e.g. Lichtenthaler, 2009; Parida et al., 2012; Hung and Chou, 2013; Yun et al., 2018).

The landscape for entrepreneurial initiatives has changed over the last years, and a growing number of Open Innovation Platforms (OIPs hereafter) entered the global arena as significant tools to help companies in leveraging new knowledge from the people (West and Bogers, 2014; De Falco et al., 2017).

In recent years, several scholars have approached OIPs in order to explore their dynamics, and most of them focused on knowledge-based practices, platforms services and motivations of collaboration between participants (Frey et al., 2011; Kathan et al., 2014; Battistella and Nonino, 2012, 2013; De Falco et al., 2017; Randhawa et al., 2017; De Silva et al., 2018; Matricano et al., 2019).

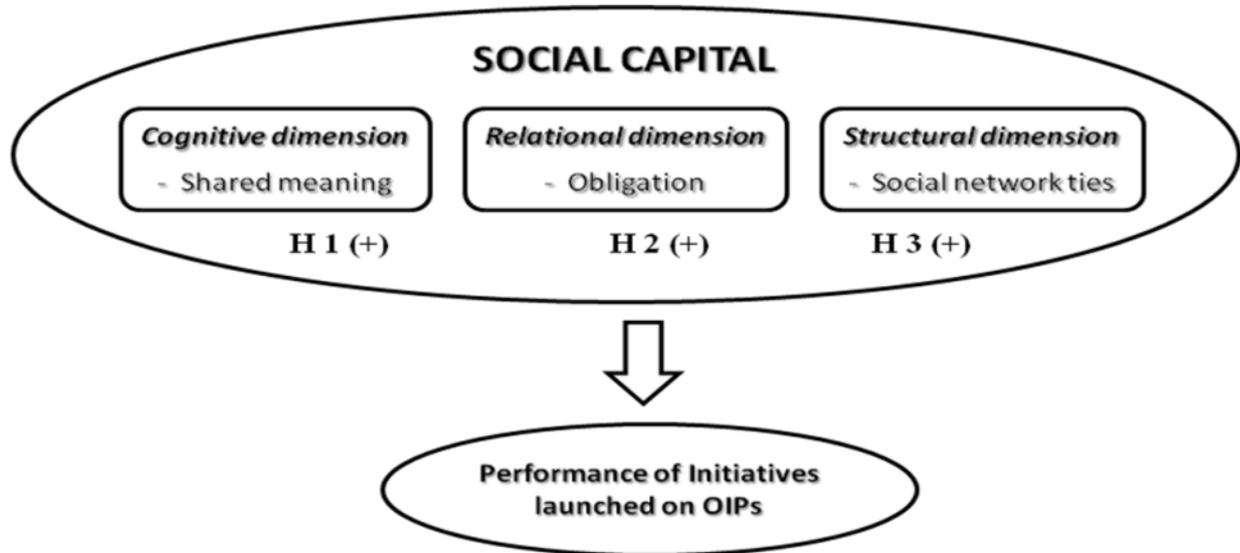
OIPs are a typical example of "two-sided platforms" as they connect two groups of users and operate as intermediaries (Belleflamme and Peitz, 2018). Two types of users populate the virtual OIPs on the demand side and the supply side (Troise et al., 2020): innovation seekers (the proponents of initiatives who launch online challenges) and backers (the innovators or problem solvers who support the initiatives and contribute to solve a challenge by sending their ideas).

Despite the spread of OIPs and the growing interest by scholars and practitioners, only few studies have explored the successful drivers that lead initiatives to get superior performance through the online challenge (Troise et al., 2020). In this specific emerging research stream, little is known about the role of social capital in the success of these initiatives within OIPs.

The aim of this study is to fill this gap by investigating the role of social capital in the success of online challenges within OIPs. Since social capital is a multidimensional concept, we consider the effects of its three main dimensions: cognitive, relational and structural (Nahapiet and Ghoshal, 1998; Liu et al., 2010; Zheng et al., 2014). In line with the prior study of Zheng et al. (2014) who analyzed these three dimensions in the context of reward-crowdfunding platforms, we consider: shared meaning (i.e. the length of the description of initiatives posted on the OIP) as an expression of the cognitive dimension; obligation (i.e. the number of others' initiatives who the proponents of the challenge supported before

the launch of their own initiative) as an expression of the relational dimension; social network ties (i.e. the number of proponents' friends on their main social networks, e.g. Facebook and LinkedIn) as an expression of the structural dimension. Based on the above, we propose the following theoretical framework (Figure 1) in order to explore the effects of social capital on the performance of online initiatives launched on OIPs.

Figure 1. Theoretical Framework



We propose that social capital – i.e. cognitive dimension (H1), relational dimension (H2) and structural dimension (H3) – positively influences the performance of the initiatives launched on OIPs. Following the prior study of Troise et al. (2020), we consider two main parameters as proxies of initiatives' success: the number of ideas submitted at the end of the online call and the number of final backers involved.

This research is a work in progress. We are collecting data from four main well-known OIPs (since their origin up to 2019): Opeindeo, Openinnovation-suedtirol, Guerra-creativa and Crowdspring. At the end of the data-collection we will have about 600 initiatives as final sample. In order to test the impact of social capital on initiatives' performance we will run two regression models (negative binomial or zero-inflated negative binomial regression as the two dependent variables are count parameters) in order to capture its effects on the final number of ideas (Model 1) and the number of backers (Model 2). We expect a positive impact of the three factors on both the initiatives' outcomes.

The results of this research will add new knowledge in a nascent research stream and – hopefully – will have both theoretical and practical implications for several stakeholders, in particular innovation seekers (especially companies and entrepreneurs), backers, platform managers and policy makers.

*Keywords: Open innovation; Social capital; Cognitive dimension; Relational dimension; Structural dimension; Open innovation platforms; Digital platforms.*

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# DETERMINING FACTORS AFFECTING THE CHOICE OF SUSTAINABLE FISH PRODUCTS: AN EMPIRICAL INVESTIGATION IN THE ITALIAN AND SPANISH MARKET

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## ABSTRACT

## INTRODUCTION

In recent decades, the fish stocks have been increasingly depleted, due mainly to the overfishing and illegal fishing. The perception of excessive fishing capacity led in the early 2000s to a review of the Common Fisheries Policy and the approval of regulations aimed at recovering depleted fish stocks and achieving greater sustainability in the sector. At the same time, the environmental awareness of consumers has grown, resulting in a greater attention towards sustainable products. Despite the new trend in consumption, few scholars have so far focused on consumer habits of sustainable fish products (Kirby and Ward, 2014; Asche *et al.*, 2015; Asche and Bronnmann, 2017). To fill this gap, the aim of this study is to explore the main factors affecting the intention of consumers to choose sustainable fish products.

## METHODOLOGY

To achieve this purpose, a questionnaire was developed based on previous empirical studies on this topic (Grunert *et al.*, 2011; Panda *et al.*, 2020; Kiluchi-Uehara *et al.*, 2016) and conveyed through the main social networks. The survey was carried out in Italy and Spain, two of the most important EU fish producers countries (EUMOFA, 2020), during the period January-February 2020. At the end of the survey, we obtained 324 complete questionnaires, with reference to the Italian market, and 289 for the Spanish one. The data obtained concerned information on the frequency of fish consumption, quality attributes of the purchased products, the values and beliefs of consumers, as well as their socio-economic characteristics. Then, we performed two Probit regression models, respectively for the Italian and Spanish samples, in order to identify the main factors affecting the intention of consumers to choose sustainable fish products.

## RESULTS

Results reveal a greater willingness of Italian consumers (82.1% of the respondents) to choose sustainable fish products, than Spanish consumers (69.2%). Furthermore, the research suggests that those who claim to have strong values of environmental protection and those who are sensitive to altruistic values are more likely to choose seafood produced in a sustainable way. Similarly, the importance associated to the presence of eco-labels on purchased fish products affects positively the intention of consumers to make seafood choices more sustainable. With reference to the socio-economic variables, younger consumers show a greater probability to choose sustainable fish products.

## CONCLUSIONS

The paper presents interesting evidence on the intention of the consumers to commit themselves to make seafood choices more sustainable, showing the main factors affecting this behaviour. Furthermore, the results of the study provide practical implications. On the one hand, the work suggests new insights for entrepreneurs and fish industry operators to define their marketing plans based on the characteristics of consumers. On the other hand, findings provide to policy makers hints for defining awareness campaigns among the population, aimed to increase sustainable purchasing choices by consumers. Despite this, the research is not without limitations, due to the online sampling method, which does not provide a representative sample of the investigated populations. For this reason, future research could extend the investigation to a wider audience and other European countries.

*Keywords: Altruism; Awareness; Environmental values; Fish consumer; Italy; Probit model; Purchase decision; Seafood products; Spain.*

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## INTEGRATED SUPPLIER-BUYER INVENTORY MODEL WITH IMPRECISE AMOUNT OF DEFECTIVE ITEMS

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### ABSTRACT

In this study, we developed a model to determine an integrated supplier-buyer inventory policy for a single product with defective items, stochastic rework rate and partial backorders. The production process is not perfect and produces a certain amount of defective items with constant rate, while only random proportion of them can be reworkable. There is investment to improve the production process quality and reduce the amount of defective items on the supplier's side. Even though supplier prepares all items in perfect quality at the end of its process, buyer may receive imperfect items due to mishandling, transportation error etc. Demand at buyer's side is stochastic which follows normal distribution. The objective is to minimize the total joint annual costs incurred by the supplier and the buyer. We find the optimal order quantity and reorder point from the expected total annual integrated cost. With numerical examples, it is clear that the integrated model provides a reduced cost in comparison to an independent decision by the buyer. Moreover, the investment from the supplier helps minimizing the joint expected annual total cost.

*Keywords: Inventory Model, Continuous review, Reorder point, Defective rate, Rework, Backorder*

# A PRELIMINARY ANALYSIS OF THE EFFECTS OF THE IMPLEMENTATION OF MBO ON EMPLOYEE SATISFACTION IN A GREEK PUBLIC ORGANISATION

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## ABSTRACT

In addition to the celebrations of the Pankhurst Trust 2018 Centenary Events when Some Women achieved the vote – and, a year that drew attention to the need to continue to ensure women are equally represented in positions of power in the workplace as demonstrated by the *#me too* social movement and a year when the Social Mobility Commission demonstrated the slowing down of social mobility. By March 2018 the publication of the Gender Pay Gap certainly confirmed the need for more action to be taken. The coaching project was an initiative launched by a group of women under the auspices of the Pankhurst Trust who particularly recognised the undervalued skills of women in civic society and also jobs in the hospitality and retail sector. We were keen to offer an alternative to the corporate websites with coaching courses that might not been seen as relevant to the target group. Talking with a variety of senior women in both the private but mainly public sector we found a great deal of support for the idea of a different sort of coaching service and target group and offers to volunteer for any such initiative.

Much has been written about the need for diversity, equity and inclusion in the workplace (Bond and Pyle, 1998; Kelly and Dobbin, 1998; Liff and Wajcman, 1996). A recent survey by Price Waterhouse Coopers highlighted that over 80 percent of CEOs are focussed on promoting diversity and inclusion in their organizations. Coaching initiatives are a vital component for establishing a successful workplace diversity and inclusion programs. Moreover, companies with greater gender and cultural diversity have shown an overall increase in their revenues (Hunt et al, 2018). Still, we find that that the majority of organizations who provide coaching have only paid lip-service to the needs of their employees in terms of their personal and career development (Feldman and Lankau, 2005; Kampa-Kokesch and Anderson, 2001; Mackie, 2007). The majority of women including minorities remain under-represented in many occupations, most notably in high level positions (Hunt et al, 2018). Research has shown that coaching is a vital not only for professional development but to also improve self-confidence, build networks and provide a balance between work and home life (Coffey et al, 1999; Ruderman and Ohlott, 2002) (Birkeland et al, 1997; Peterson, 1993). However, there is little

research that examines how and why coaching works (Ely et al. 2010; Feldman and Lankau, 2005; De Meuse et al, 2009), especially for women who lack access to these resources. Moreover, the coaching literature is insufficient on diversity in terms of research. This may be related to the fact that the coaching literature itself is relatively sparse with adhoc studies (Spence and Oades 2011).

To respond to the lack of research in evaluation of coaching programs for leadership development for women (Kauffman and Coutu 2009, Grant and Cavanagh 2007), this paper presents a coaching evaluation that includes both a summative and formative evaluation (Beyer, 1995; Brown and Gerhardt, 2002; Patton, 1994) of the client, coach, client-coach relationship and the coaching process, as well as summative evaluations of the coaching program. The overall aim of this research was driven by the recognition that women across various sectors do not have access to coaching or a leadership related network whether because of their socio economic and cultural background or the type of workplace/civic role they undertake. The purpose of this paper is to evaluate the effectiveness of a coaching program for women from various organizational backgrounds, with the aim of highlighting the significance of coaching as a powerful tool for diversity, equity and inclusion amongst women in their workplaces. We believe that the role of coaching can help better support the holistic well-being of women from diverse backgrounds and help us understand the full range of factors that underlie women's decision to accept promotion or not as well providing valuable insights into the dynamics at play within their workplaces. It can also help better support the overall well-being and health of both coaches and coachees. Our report shows the findings of an evaluation of the process of designing and delivering the first phase of the service and to move to evaluate the impact. This research builds on an emerging evidence base (Friedman et al, 2017; Hunt et al, 2018; see Social Mobility commission Report- 2018-19) that demonstrates that women fail to reach their potential in both public/community and corporate life, particularly those from working class and diverse backgrounds who have little or no access to a leadership related network. Interviews and data collected from our sample of women revealed that coaching is the key in helping them to make conscious choices and become more inclusive and take actions to make their organizations more equitable. Moreover, Our, initial evaluation of the coaching program has highlighted that coaching is a key activity in the management development, talent management and performance improvement of women leaders across the Greater Manchester area (Pankhurst, 2019).

*Keywords: Management by Objectives, Job Satisfaction, Perceived Performance, Greek Public Organisation*

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## MANAGING COMMUNICATION IN INTEGRITY BASED CRISIS: DEALING WITH STAKEHOLDERS PERCEPTIONS

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### ABSTRACT

Firms are exposed to several situations that can end in a communication crisis damaging its trust and reputation (Coombs and Holladay, 2002; Coombs, 2015). Regarding this issue, a plethora of studies has examined the way of minimizing the impact of these negative events by using a communication strategy. Particularly, communication crisis involving an integrity-based trust violation may be especially critical for organizations as they may erode corporate reputation and customer loyalty due to an unethical or immoral decisions. In this regard, several studies have examined these types of crises derived from decisions taken by top managers. Some recent examples are the cases of globalized firms such as Volkswagen due to the diesel emissions software cheat technology (Painter and Martins, 2017) or Nike due to illegal hiring practices (McHale et al., 2007). However, the examination of micro-crisis derived from unethical or immoral behaviors from other workers are less usual, despite these crisis are gaining relevance due to the availability of more information about negative events in social media networks (Cheng, 2018; Snoeijers et al., 2014). Previous studies show that organizations often fail to successfully manage integrity-based trust violations because they do not take into account different stakeholders' perceptions. Precisely, in this study, we aim to cover this gap and examine an integrity based crisis situation derived from employees' unethical behavior in a specific event with an important diffusion in social media.

Additionally, we adopt a stakeholder approach in order to examine if managers prepare their responses for an integrity based crisis situation by considering different stakeholders' specific necessities. Then, we analyze if different responses are driven to different stakeholders and which motivations are behind their decisions. Traditionally, literature has focused on specific responses, such as apology-oriented responses (Bentley, 2018), and/or specific stakeholders, such as customers (Dutta and Pullig, 2011). In this research, however, we analyze both different responses in terms of apology, compensation and corrections, as well as different stakeholders involved in the crisis communication, i.e. employees, clients and other individuals from the community.

We base our research on the Situational Crisis Communication Theory (SCCT) which defines different action models regarding the kind of crisis to be managed (Coombs and Holladay, 2002; Coombs, 2014), together with the stakeholder theory (Bentley, 2018). Specifically, we focus on a crisis situation in which

company's trust is affected and how it should be restored via different actions: apology, corrective and compensatory responses (Coombs, 2006). Additionally, we explore how these responses are perceived by different stakeholders taking into account their interests and how the crisis affect each of them (Xu and Li, 2013).

To develop the analysis, we examine a case study from a bank company in Peru which suffered a crisis communication from an unethical behavior from some employees in a sponsorship campaign linked to the classifications for the 2018 FIFA World Cup. The findings indicate that the most effective way to rebuild trust and re-establish legitimacy with key stakeholders is for managers to adopt strategies that include apology, corrective and compensatory actions. The results reveal that stakeholders react in different ways to the crisis response actions adopted by organizations. Apology actions, for example, are perceived more favorably by internal stakeholders than by external stakeholders, while compensatory actions are perceived most positively by external stakeholders. Unexpectedly, corrective responses—in which employees who behave unethically are fired—are seen in the least positive light by all stakeholders. In general, external stakeholders (especially non-clients) have a more critical opinion of crisis communication management than do internal stakeholders. The study highlights the theoretical and practical implications of these findings for scholars and practitioners.

*Keywords: Crisis communication, Social media, Stakeholders' perceptions, Reputation.*

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## FOSTERING COLLECTIVE INNOVATION IMPLEMENTATION WITHIN DIGITAL PUBLIC SERVICES

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### ABSTRACT

### THEORETICAL BACKGROUND

A key global trend in public sector organizations is to adopt innovative tools which improve the quality of public services, deliver services faster and less expensively, yet more effectively (Arundel, Bloch, & Ferguson, 2019; Bertot, Estevez, & Janowski, 2016; De Vries, Bekkers, & Tummers, 2016). In the current era of 'Digital Government' most developed countries embrace emerging technologies which help them move toward a more digital framework and implement public services innovation at all levels, national, state and local (Bason, 2018; OECD, 2017). As public organizations routinely innovate, it is of paramount importance to ensure that managers and their subordinates fully subscribe to a belief in their own efficacy to implement innovation successfully specifically, and about the indispensability of innovation in general (Altuwaijria & Khorsheed, 2012; Chung & Choi, 2018; Chung, Choi, & Du, 2017). Despite its importance, thus far we know little about the factors fostering public servants' belief in their own efficacy and collective efficacy to implement an adopted innovation. The literature on the topic of innovation implementation, especially in public management (Choi & Chang, 2009; Kim & Chung, 2017; Piening, 2011) treats it largely as a 'black box' (Piening, 2011). This study attempts to respond to this lacuna by examining the key question *-what are the antecedents which amplify public managers' collective implementation efficacy?*

Public administration is a useful target for innovation studies because these organizations provide the framework for the ways public services are provided (Arundel et al., 2019). However, in the context of the public sector, researchers need to pay special attention when studying innovation, since its distinctive characteristics (including rigid hierarchical structure and aversion to risk,) may inhibit employees from experimenting with innovative ideas (Park & Jo, 2018). Managing innovation under these circumstances could be much more challenging compared to the business sector, especially since delivering innovative service is a relatively new goal in some of the OECD countries. In this respect, public managers may view innovation as a source of organizational change, growth, and effectiveness (Damanpour & Schneider, 2009), and therefore may serve as a driving force to overcome part of the restrictions listed above. The overwhelming scholarly consensus maintains that

frontline managers are key to facilitating service innovation (Borins, 2014; Gallup Organization, 2011; Schaarschmidt, 2016). Despite this consensus, however, only limited attention has been paid to explaining innovation from managers' point of view (Kissi, Dainty, & Liu, 2012; Shanker et al., 2017). Therefore, we posit that it is important to understand how managers perceive both organizational context and individual factors of collective efficacy within the innovation process.

## **METHOD**

### *Sample and procedure*

Our first procedural step was to conduct a pilot questionnaire with a sample of 30 adult students working in the public sector target population. This stage identified any potential problems with the questionnaire (Dillman et al., 2009). Data collected from this pilot test were reviewed, with minor modifications made to the translation. The second step made use of a web-based self-administered questionnaire (iPanel- the Israeli internet panel). In the first wave of data collection, a total of 550 complete responses were obtained from managers in the public sector (an 82.3% response rate). In the second wave 303 complete responses (a 55.09% response rate) were obtained. Pairing the respondents between the two waves provided complete data for 298 participants, corresponding to a total response rate of 54.18%.

## **RESULTS**

The findings indicate that innovative climate is positively related to collective implementation efficacy ( $\beta = 0.56, p < 0.001$ ;  $\beta = 0.54, p < 0.001$ ). Innovative climate is positively related to creative self-efficacy ( $\beta = 0.26, p < 0.001$ ;  $\beta = 0.36, p < 0.001$ ). The effect of innovative climate on collective implementation efficacy decreased in absolute size in wave 1 ( $\beta = 0.21, p < 0.01$ ) when controlling for the effect of creative self-efficacy, and fully mediates in wave 2 ( $\beta = 0.54, p < 0.01$ ); Sobel test statistic = 2.80,  $p < .001$ ;  $R^2 = 0.38$ . The effect of innovative climate on collective implementation efficacy decreased in absolute size in wave 1 and 2 respectively ( $\beta = 0.26, p < 0.001$ ;  $\beta = 0.34, p < 0.001$ ) when controlling for the effect of leader expectations; Sobel test statistic = 4.08,  $p < .001$ ;  $R^2 = 0.45$ . The effect of innovative climate on collective implementation efficacy decreased in absolute size in wave 1 and 2 respectively ( $\beta = 0.32, p < 0.001$ ;  $\beta = 0.29, p < 0.001$ ) when controlling for the effect of proactive behavior; Sobel test statistic = 4.87,  $p < .001$ ;  $R^2 = 0.42$ .

## **DISCUSSION AND CONCLUSIONS**

This study focuses on the organizational and individual factors shaping managers' collective implementation efficacy among public sector organizations implement service delivery innovation. Specifically, drawing on the scholarly argument that public managers play a central role in maximizing innovation (Borins, 2014; OECD, 2017b), this study seeks to understand how the influence of innovative climate on managers' collective implementation efficacy is mediated by creative self-efficacy, leader expectations for creativity and proactive behaviour. By investigating these factors among managers under the 'Digital Israel' program, our study provides relevant lessons for most OECD and EU governments presently face the challenge to obtain successful implementation of service delivery innovation across their public-sector organization. Further, the results of this study offer a number of contributions for theory, research, and practice.

Drawing on Social Cognitive Theory (Bandura, 1997, 2001, 2002), the study suggests an agentic perspective to understand the role of managers' self- and collective efficacy in actualizing and implementing innovation in the workplace. Social cognitive theory offers useful explanations for the psychological and behavioural elements leading to an understanding of the scene behind of innovation process and behaviour. Therefore, this study's findings are of interest because they reveal the psychological and contextual elements behind innovation implementation. In this respect, the research model delineating the effect of both contextual and individual antecedents on collective implementation efficacy yielded a number of helpful results.

First, the findings confirm that the significance of the relationship between innovative climate and creative self-efficacy as well as collective implementation efficacy. It asserts that the key constituent of managing for innovation is creating the appropriate climate so that employees can share and build upon each other's ideas and suggestions (Shanker et al., 2017).

Second, in light of the fact that the implementation of services delivery innovation among developed economies is a relatively new phenomenon, accelerated in recent decades, organizational leaders must be understood as playing a central role in promoting innovation. As a recent comparative review suggested, frontline staff and middle managers often have the best understanding of the need to innovate (OECD, 2017, p. 19). In this regard, leader expectations for creativity was found as partly mediated between innovative climate and collective implementation efficacy. Signals originating with senior management are likely to be a particularly effective step forward toward innovation implementation (Choi & Moon, 2013), as management's support was found to be a strengthening factor for collective implementation efficacy (Choi & Chang, 2009). The managers' perceptions may be consistent with Bandura's (2002) suggestion that perceived collective efficacy bring the dynamics of group functioning to fruition.

Third, our results corroborate previous studies' findings that high self-efficacy in employees is positively correlated with proactive behaviour (Griffin et al., 2010; Huang, 2017). However, the findings add to the already existing knowledge that proactive behaviour is partly mediated between creative self-efficacy and innovation implementation efficacy. In the context of innovation, people's self-efficacy beliefs determine their level of motivation, as reflected in how much effort they would exert in any endeavour (Bandura, 1989). Proactive behaviour can be aimed at objectives aligned with prosocial and organizational (Grant & Ashford, 2008; Griffin et al., 2007), and as such encourage collective implementation efficacy. Managers' behaviour related to innovation is particularly influential in shaping related collective efficacy (Chen & Bliese, 2002). In this regard, this study shows that when line managers possess creative self-efficacy as well as proactive temperaments, collective implementation efficacy may be advanced.

To conclude, our study is among the first efforts to examine how OCI, creative self-efficacy, leader expectations for creativity and proactive behaviour jointly facilitate collective implementation efficacy among line-managers within the public-sector organizations. Further, it offers new agentic perspectives for the examination of organizational and individual factors shaping collective implementation efficacy. Given that the innovation implementation forms a cyclical process, in which management tends to introduce another innovation immediately after adopting a previous one and that a high rate of implementation failure is endemic to innovative activity (Chung, et. al., 2017), this study contributes a specific consideration of factors reinforcing this important ongoing process.

## **IMPLICATIONS FOR POLICY MAKERS AND MANAGERIAL PRACTICE**

This study investigates public sector managers' perceptions while they implement service delivery. Equally important, the study was conducted within the Digital Government program where the digitization of public services is in full swing across all public organizations. Our findings have implications for both policy-making and managerial practice.

The distinct context of public sector innovation (where policy makers have a mandate to allocate service delivery innovation) permits the following suggestions. Policy makers should nurture organizational leaders who have influence in encouraging innovation as a means to improve service effectiveness which is of benefit to citizens and other stakeholders. Investment in tutoring and equipping them with skills needed to implement service delivery innovation is paramount. Once new digital services are adopted, it is policy-makers' responsibility to provide supportive, tailored programs across the public-sector organization, integrate training for managers, lead them to create supportive environment for public servants as they confronted with an adopted service-innovation.

At the internal organizational level, public managers, the targeted group for leading innovation, should act as 'innovation implementation-enhancing forces'. They should provide motivational infrastructure for their followers to work toward the organization's mission – beneficial service innovation. Second, considering the crucial value to organizational innovation of behaving proactively (Parker & Pu, 2014), managers with a proactive approach can stimulate their followers by continually encouraging the idea of implementation as a process. In particular, targeted proactive intention increases intellectual stimulation among employees, helping them to overcome difficulties during the implementation phase. Finally, managers who model a high level of collective implementation efficacy should energize subordinates to collaborate with colleagues to realize the intended benefits of new digital services for all stakeholders. The resulting high collective efficacy felt by subordinates is an important resource to maximize the implementation of new public services.

*Keywords: Collective implementation efficacy, creative self-efficacy, leader expectations for creativity, proactive behaviour, public sector, innovative climate*

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# COLOUR AND SLOT MACHINE GAMES: AN ANALYSIS OF SOUTH AFRICAN CASINO GAMER'S

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## ABSTRACT

## INTRODUCTION

From the ancient Greeks and Romans to Napoleon's France and Elizabethan England history, people used various devices to bet on the outcome of random events. The first slot machines were originally used as automatic vending machines and in 1899 Charles Fey manufactured the first slot machine, called the Liberty bell (Bellis, 2019). The rapid growth of live online casinos, urged management of land based casinos to relook at their current product offerings (Econotimes,2020). The Parliamentary monitoring group, indicated in the (2011) gambling review commission report that land based casinos need to modernize their product offerings in order to stay sustainable. When navigating a casino gaming floor, one is overwhelmed by the different variations of colours. According to Joosten, Lankveld & Spronck (2010) psychological research has shown that music and color affect people's emotions and behavior, while gaming. The current body of knowledge on the role of colour in gaming can be classified into two broad streams namely the role of colour in the operational side of slot machine games (Bennette, 2000; Turner and Horbay, 2004) and the role of colour in gaming (Herbert, 1962; Fisher, and Griffiths, 1995; Wolfson and Case, 2000). Zlomke and Dixon (2006), as cited by Dixon, Bihler and Nastally (2011:2), conducted a study in which nine participants were asked to respond to two concurrently available slot machines, differing only in colour: one yellow and one blue. Eight out of the nine participants preferred the yellow slot machine rather than the blue one. Robles (2012:4) states that Kandinsky (1912) explained in his colour theory, that when people see the colour yellow, they see "cheeky and exciting", the colour blue creates a feeling of deep, inner peace. In light of the above, it can be concluded that there is a lack of current research on the influence of colour on slot machine gamers. To address the identified need, 630 slot machine gamers were interviewed at six selected Sun International casinos in South Africa. The purpose of this quantitative descriptive study is to determine the influence of colour on the perceptions and experiences of slot machine gamers. The 630 structured questionnaires were obtained through personal interviews in the gaming areas. By understanding the importance of colour in slot machine games, can assist slot machine game designers in the developed of new games that will satisfy the rising need for technology and interactive gaming at land based casinos.

## METHODOLOGY

Based on the preceding contextual background and the literature, this study aimed to meet the following research objective and related hypothesis. Objective: To determine whether colour as slot machine attribute influence the slot machine selection of casino gamers. From this research objective the following hypothesis were formulated:

**H<sub>01</sub>**- No significant differences exist between male and female slot machine gamers regarding the way they perceive colour as a slot machine attribute.

**H<sub>a1</sub>**- Significant differences exist between male and female gamers regarding the way they perceive colour as a slot machine attribute.

Cluster sampling method was used in the selection of the subgroups which were representative of the population (slot machine gamers, busy playing on a slot machine game). Fieldworkers conducted personal interviews with 630 gamers within the gaming areas of the six selected Sun International Casinos. The raw data obtained from the questionnaires was edited before it was statistically analysed with the SPSS statistical software program.

## RESULTS

Colour as slot machine attribute was statistically analysed by applying a Chi-square test. The results indicated that (34.3%) preferred blue followed by (21.6%) red and the least favorite colour was (12.1%) yellow, opposing the findings of Zlomke and Dixon (2006). Gamers were asked if they could design their own slot machine, what the outside colour of the machine would be. The majority (23.7%) indicated black followed by blue (21.1%). With regards to the levels of disagreement and agreement on how gamers perceive colour as a slot machine attribute: Both male (61.8%) and female (72.9%) gamers **agree** that when entering the gaming area of the casino, they noticed all the various colours around them. The male (57.1%) and female (62%) gamers also **agreed** with the statement that when they select a slot machine to play, they only focus on the slot machine game, and not on the outside colour of the slot machine. Both male (67.3%) and female (72.9%) respondents **agree** with the statement that coloured lights on top of the slot machines that indicate the different denominations are a good idea. Finally, when asked if "Colour plays a role in my slot machine selection" both male (54.4%) and female (55.7%) gamers **agreed** with this statement.

## CONCLUSION

Colours can trigger different emotions within us and therefore the ambience created within the casinos helps gamers to forget about their everyday lives and to focus on the gameplay. Casinos

controls the ambience through the implementation of various colours not only on the walls but also on the slot machine games. By understanding the importance of colour in slot machine games, can assist slot machine game designers with the development of new slot machine games that will generate the right emotions needed for continues gaming pleasure that in turn will contribute to the sustainability of the casino.

*Keywords: Colour, Stimuli, Slot machine, Psychological field, Gamers*

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# THE IMPACT OF SOCIAL MEDIA CONTENT ON TOURISTS' TRIP PLANNING: THE ROLE OF TOURIST INSPIRATION

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## ABSTRACT

Although social media content as an effective marketing tool plays an essential role to trigger outbound tourists' interests and affecting their trip planning process, little is known about the underlying mechanisms among them. This paper proposes a three-stage conceptual diagram of how outbound tourists process and use social media content for the selection of different destination choices and local activities. The three stages include social media content, tourists' inspiration and trip planning. This paper provides a potential diagram dimension and suggests that the social media content could inspire tourists their outbound destination and activity choices. These insights produce new and useful insights for scholars and practitioners, such as designing effective social media marketing initiatives in destination promotion. This research finds the different tourist attitudes towards user-generated content (UGC) and firm-generated content (FGC) when they screen various categories of travel relevant content on social media platforms. Most tourists prefer to review UGC instead of FGC on some occasions during their trip planning process.

## 1. INTRODUCTION

The popularisation and use of social media has affected tourism marketers to stimulate communication, engagement and interaction, which are likely to generate increased loyalty and awareness and, positive word of mouth, and image (Leung et al., 2013). There is an emergence of the use of social media for travel products and services which in turn attracts tourists to search and share tourism-related information via these platforms and assists them in making their trip planning (Kim et al., 2017). Tourists can collect travel information from official destination accounts and other travellers across varied social media platforms (e.g. Instagram), as social media platforms provide an interactive communication channel. (Leung et al., 2013). However, few studies explore the underlying mechanisms during their trip planning process. To this end, we report the preliminary findings of a qualitative study to understand how user-generated content (UGC) and firm-generated content (FGC) influence tourist trip planning, including destination and activity.

## 2. LITERATURE

This study uses the tourist inspiration concept to understand how UGC and FGC influence tourist trip planning, including destination and activity choices. Tourist inspiration is derived from customer inspiration from marketing content. It includes two states: “inspired by” state and “inspired to” state. Customers receive new ideas or messages which can stimulate consumers’ imagination and mental horizons (Böttger et al., 2017). This experience can act as a transcendence process that leads to self-transformation (Böttger et al., 2017). By contrast, the inspired-to state links a consumption-related goal, which means that consumers pursue to actualize the new idea (Oleynick et al., 2014). As a destination marketer, it is important to increase engagement with tourists by inspiring them to share the tourism-related content (UGC) and be inspired by the content by destination marketers (FGC) on social media platforms. To this end, we explore how social-media content acts as an inspiration source during the trip planning stage, as socialmedia platforms can stimulate conversation and new ideas about trip planning (Hays et al., 2013). The conceptual diagram is presented in Figure 1.

## 3. METHODOLOGY & FINDINGS

We used semi-structured, in-depth interviews with 15 participants (age: 19-40; 6 Female and 9 male) to collect the primary data. Interview themes were grounded in the literature (Böttger et al., 2017). This study used NVivo 12 software to conduct a multi-stage data analysis. Stage one included reviewing the collected textual material (i.e. interview transcripts and documents) and using open-coding. Themes and narratives in the coding process were identified and labelled, followed theme development and axial coding (Keogh et al., 2020). The key themes and words emerge after this process. In terms of social media content, trustworthiness, e-word of mouth, a tour guide with fair comments are the keywords to influence their evaluation and trip planning selection, such as destination choice, travel activity and entertainment. Key opinion leaders (KOL) also have a powerful direction to trigger their inspiration and rise their interests to plan a future trip. The veritable image is more valuable compared with text and videos. Most tourists do not have the patience to watch a video if it takes more than 45 seconds. Unique and excite photos and vidoes with a good title can attract more tourists to review and feel the inspiration.

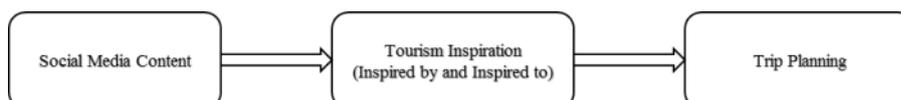


Figure 1: The conceptual diagram

#### 4. CONCLUSION

When tourists search for destination-related information on social media, other travellers' travel guides, advice and experiences can trigger their imagination and change their minds (Ye et al., 2011). In turn, the new ideas sourced from social-media content will be taken as a source of inspiration by travellers. The findings support that tourist inspiration could be a key mediator in the relationship between social media content and trip planning. Furthermore, the findings suggest that in the tourist mind, UGC is a dominant factor to influence their trip planning process compared with FGC. Images with brief intro texts and vlog (UGC) could attract tourists' attention to review and click the links. Tourists could feel inspiration from unique natural scenery, architecture and cultural experience. The next stage will include conducting a quantitative study to test the emergent model.

#### ACKNOWLEDGMENT

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*Keywords: Social media content, Tourist inspiration, Tourists' behaviour, Trip Planning.*

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## **SOCIAL MEDIA CRISIS RESPONSES AND REPUTATION**

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### **ABSTRACT**

### **INTRODUCTION**

Social media crisis is defined as cases that might affect an organization and arise in or are amplified by social media (Coombs, 2015). Company responses are expected after social media crisis. Some companies are lack of immediate response for various reasons. One is the relevant posts come and go quite fast. Another one is based on a Chinese proverb "If you are do nothing wrong, it is no need to clarify." Even rumor might affect corporate reputation (Wut, 2019). The purpose of this study is how to make crisis response in order to regain corporate reputation.

### **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

#### **Exemplification Theory**

Exemplification theory offers explanation how responses are spread and remembered over time (Ulmer et al., 2019). People in social media could do the same. Organization should not be passive or remain silent as other people are looking for their feedback. Even afterward such claim is proved wrong, an association between exemplar and the company can remain in the mind of stakeholders (Westerman, Spence & Lachlan, 2012). The image and the perception of the organization could cause impact on reputation. Thus, if an organizations offer an immediate response, it would certainly minimize the negative consequences.

Hypothesis 1: There is a significant difference in reputation rating in social media crisis between company with response and without response.

#### **Source Creditability Theory**

People are smart and some of them think that corporate response may speak for itself. Thus, key opinion leader's response could be more credible in the sense that they are not part of organization. Theoretically he or she should be neutral in their opinion although some people might think that they are sponsored.

Hypothesis 2: There is a significant difference in reputation rating in social media crisis between corporate response and key opinion leader (KOL) response

#### **Situational Crisis Communication Theory**

From Situational Crisis Communication Theory (SCCT), there is one common major crisis response strategy call Bolstering posture. This is a reinforcement posture and often used with some other response strategy. One way to present the posture is reminding. Reminding tells stakeholders about the past good works of organization (Coombs, 2015). Corporate social responsibility practice is one of the good works of organization.

Hypothesis 3: There is a significant difference in reputation rating in social media crisis between corporate response only and corporate response with follow up communication of reminding on social responsibility practice.

## **METHODOLOGY**

Scenario based survey study was used to investigate the effect of negative social media post. A group of 115 respondents were presented an introduction of a fictitious travel agency company and presented a social media post on Facebook describing a human resources problem of the travel agency company. The post was accompanied with clarification of the travel agency company or a key opinion leader. Reputation ratings were measured.

Two weeks later, respondents were presented some corporate social responsibility practices done by the company. Reputation ratings were measured again. Seven point Likert scales were used.

## **ANALYSIS**

Paired sample t-test was performed for hypothesis 1. The alternative hypothesis was supported for overall reputation quotient rating at p value = 0.01. Reputation rating of immediate corporate clarification is greater than without clarification (4.22 vs 3.27).

Paired samples t-test was performed for hypothesis 2. The null hypothesis cannot be rejected at p value = 0.264. Reputation rating with KOL endorsement is the same with corporate clarification.

Paired sample t-test was performed for hypothesis 3. The alternative hypothesis was supported for overall reputation quotient rating at p value = 0.01. Reputation rating of corporate response with follow up communication of reminding on social responsibility practice is greater than corporate response only (5.36 vs 4.22).

## **DISCUSSION AND CONCLUSION**

This study provides empirical evidences to support the Exemplification theory, source credibility theory and Situational Crisis Communication Theory. Immediate corporate clarification is recommended even for social media crises. Stakeholders are looking for information when something happens. Supporting statements from third party such as a key opinion leader is recommended to

increase the creditability of the clarification if the corporation is reluctant to give a response. The effect is the same. Follow up communication of remind past good work is a good strategy.

## ACKNOWLEDGEMENTS

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*Keywords:* Social media; Crisis responses; Reputation; Corporate Social Responsibility

We declare that there is no potential conflict of interest

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## **A 35 YEARS REVIEW OF CRISIS MANAGEMENT RESEARCH IN THE HOSPITALITY AND TOURISM INDUSTRY**

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### **ABSTRACT**

### **INTRODUCTION**

The scope of crisis management includes crisis prevention, crisis preparation, crisis response and crisis revision (Hoise & Smith, 2004). Step to detect any warning signs is an important job in crisis prevention. Crisis preparation usually involves forming a crisis management team, crisis management team composition, formulate crisis preparation plans and training spokespersons. More people will recognize crisis response since the organization making response is usually under spot light. How do we learn from crisis is a central topic under crisis revision (Crandall et al., 2014).

This study aimed to examine and evaluate the literature of crisis management in the hospitality and tourism industry in a systematic manner. As the research areas are emerging, more papers are published during the past few years. The major themes and future research opportunities and agenda will be identified after a thematic content analysis of the related peer-reviewed journal articles. This study has the following questions:

- 1) What are the main themes of the crisis management literature in the hospitality and tourism industry?
- 2) What is the future research agenda regarding the hospitality and tourism industry and crisis management?

### **METHODOLOGY**

This systematic literature review adopted steps of Preferred Reporting items for systematic reviews and meta-analysis. 1) identify related articles through databases and other sources; 2) records after duplicates removed; 3) records screened; 4) full-text papers assessed for eligibility; and 5) studies included in qualitative synthesis. We searched for peer-reviewed journal articles published since 1980 in tourism and hospitality industry crisis management from electronic databases. We performed the searches during the period of 7-21 April 2020. Basic search was organized around the three constructs of 'tourism', 'hospitality', 'crisis', 'crisis management', 'risk', 'risk management', 'disaster', and 'disaster management'. In the total of 1078 search results generated from different combinations of the

mentioned keywords, 444 studies were included, with duplicated and irrelevant entries excluded. The selected articles are published in between 1985 and 2020. Figures in the year 2020 are not completed and given here for reference only. Authors assessed full text papers retrieved for inclusion in this review. After downloaded and imported the retrieved material, extracted data from the publications are recorded in an Excel document in alphabetical order of the first author's name, and key findings are identified from the abstract, discussion or conclusion.

## RESULTS AND CONCLUSION

The findings show that crisis/disaster management research has focused on refugee crisis, social media and political disturbances themes recently. Nine possible further research areas in the hospitality and tourism industry are proposed: data privacy, impacts on various tourism sectors for refugee crisis and political disturbance; social media crisis; less unexplored sectors, new analytic methods, health-related crisis, emerging crisis events, crisis prevention & crisis preparation and risk communication.

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*Keywords: crisis management; disaster management; risk management; systematic review*

We declare that there is no potential conflict of interest

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# FOOTBALL FAN LOYALTY: INFLUENCE OF MOTIVATION, INVOLVEMENT, FOLLOWING SPORT AND SATISFACTION

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## ABSTRACT

### 1. INTRODUCTION

Amongst the four Australian football codes—Australian Rules (AFL), Rugby League (NRL), Rugby Union (Super Rugby) and A-League football (soccer)—the A-League has struggled to increase its loyal fan base, experiencing declines in season attendance rates and TV viewership (Bossi, 2017). Although there have been extensive endeavours to reinvigorate the A-League's sports market, little research has examined the antecedents of A-League fan loyalty, especially capturing the effects of motivational, involvement and satisfaction types on attitudinal and behavioural aspects. Accordingly, we propose a theoretical framework, which posits fan motivation as a driver of enduring involvement and following sport, which then influence team and league satisfaction and then attitudinal (AL) and behavioural loyalty (BL). We briefly cover the literature, method and key findings.

### 2. LITERATURE

We used eight sports-fan motivations relevant for football: aesthetics, celebrity attraction, flow, performance evaluation, vicarious achievement, camaraderie (Wang et al., 2011; Rosenberger et al., 2019). Enduring involvement (EI) is the extent to which the consumer views the object or activity as a central part of their life (Higie and Feick, 1989). Following sport (FS) is ongoing-search activities not related to a purchase need but linked to their interest, engagement and perceptual vigilance for information on a team, league or sport (Stevens and Rosenberger, 2012). We focus on overall satisfaction with the team (TeamSAT) and league (LeagueSAT) (Beccarini & Ferrand, 2006) and consider both AL and BL (Wang et al., 2011); see Figure 1. Lastly, we also explore the mediating roles of FS and AL.

### 3. METHOD & RESULTS

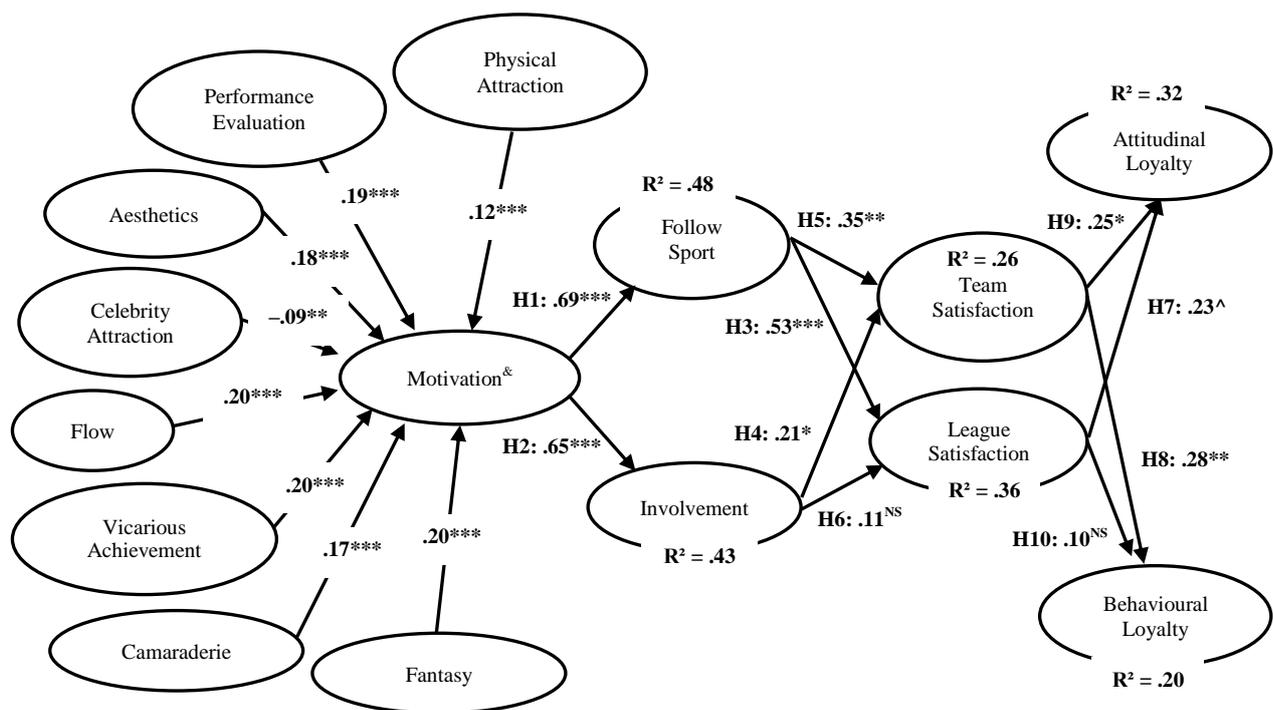
A convenience sample of 207 football fans came from an Australian university. Measures used: motivation (hierarchical, Type II construct), EI, FS, TeamSAT, LeagueSAT, AL and BL (Higie and

Feick, 1989; Stevens and Rosenberger, 2012; Wang et al., 2011). PLS-SEM analysis used SmartPLS v3.2.9 (Ringle et al., 2015). Cronbach's alpha ( $> .70$ ), composite reliability ( $> .85$ ), average variance extracted ( $AVE > .65$ ), inner model VIF values ( $< 3$ ),  $t$ -statistics and discriminant validity (Fornell-Larcker, HTMT) satisfied the recommended criteria. The results support most paths (see Figure 1). Further, the mediation results showed that following sport mediated the influence of involvement on TeamSAT ( $\beta = .085, p = .014$ ) and LeagueSAT ( $\beta = .130, p = .001$ ). AL mediated the influence of TeamSAT ( $\beta = .131, p = .032$ ) and LeagueSAT ( $\beta = .122, p = .053$ ) on BL.

#### 4. CONCLUSION

The preliminary results support the model's posited relationships. Limitations include use of a cross-sectional, Australian student sample. At the time of submission, further conceptual development, analysis and discussion work is in progress.

Figure 1. Conceptual Model Results



Notes: <sup>NS</sup> =  $p > .10$ , <sup>^</sup>  $p < .10$ , \* =  $p < .05$ , \*\* =  $p < .01$ , \*\*\* =  $p < .001$ ; & = reflective 1<sup>st</sup> order, formative 2<sup>nd</sup> order.

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Keywords: A-League, Fan loyalty, Motivation, Satisfaction, Involvement, Follow Sport, Football, Soccer, Ongoing search, League satisfaction

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