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Letter from the Managing Editor

Josep Maria Altarriba

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Last year, 2020, was marked by the global coronavirus pandemic, among other factors. In addition to the damage it caused to the health of innumerable people, the pandemic has caused changes in practically all areas of life, including educational environments. In companies, it has led to a paradigm shift towards rapid and growing digitization, which, though already present, has been accelerated by the current emergency situation. In effect, an immeasurable number of disruptive changes are brewing. Since the end of 2020 and even more so in 2021, vaccines have been administered with the aim of overcoming this complex situation and gradually returning to normalcy. At Harvard Deusto Business Research, we have continued to work to advance the generation of new knowledge. In this issue, which represents the first of Volume X, numerous authors from countries throughout the world collaborate.

The first article, written by Pilar Esperanza García Tamariz, Ricardo Mateo Dueñas and Macarena Ayleen Mansilla Mahmud, refers to the influence of subjective well-being on the job satisfaction of Peruvian millennials. This study is based on the results of a questionnaire that measured different variables, and was applied to more than 300 workers from companies in Lima, Peru, from the commercial, industrial and service sectors.

Next, Tomás Guillén Gorbe and Alejandro Escribá-Esteve discuss heterogeneity in the field of family businesses, the study of which aims to provide a better understanding of differences in the strategic behavior, performance and business results of these businesses. To this end, the authors hope to contribute to theories on the relationship between corporate governance and strategic management in the field of family business research.

For its part, the work by Abdullah Promise Opute, Chux Gervase Iwu, Risimati Maurice Khosa, Chukuakadibia Eresia-Eke, Sirak Berhe Hagos and Bridget Irene addresses the entrepreneurship of African immigrants in the United Kingdom and analyzes the hidden hand of family influence in business orientation. The importance of ethnic minority businesses has been emphasized in business discourse. Based on the theory of business orientation, this study seeks to understand the influence of the family on the processes, practices and activities of business decision-making in a relatively unexplored social group.

The fourth article, written by Alan Au and Alan Tse, is dedicated to customer accounting. In the literature, little attention has been paid to the development of a framework for understanding the concept of customer accounting and its implementations. The authors synthesize the literature on the subject and provide a theoretical framework for future research.

Next, Susana Díaz-Iglesias, Alicia Blanco-González and Carmen Order-Cruz study the advancement of corporate social responsibility (CSR) from a gender perspective through change management. In recent years, one of the main priorities of companies has been to adapt their business activity and commercial strategy to align with the 17 Sustainable Development Goals (SDGs) established by the United Nations in its 2030 Agenda. Companies develop and implement corporate social responsibility strategies. One of the objectives that has generated the most interest is Objective 5, which is dedicated to promoting gender equality. This study analyzes the evolution of gender equality in companies as part of CSR through change management.

The sixth study, carried out by Mariana Toussaint and Pablo Cabanelas, refers to the impact of COVID-19 on social sustainability. It identifies and analyzes the current challenges and problems linked to social sustainability in the days of COVID-19, identifying key actors and possible solutions and recommendations.

Celia Polo García-Ochoa, Carmen De-Pablos-Heredero, and Francisco Blanco Jiménez analyze the effects of commercial accelerators on dynamic capabilities. This article examines the effects of business accelerators on achieving positive results from the perspective of dynamic capabilities.

The eighth study, conducted by Sarah Philipson, focuses on the cost and volatility structure of capitalism. This study explores the phenomenon of changing cost structures and its implications for the volatility of capitalism as well as the possibility of managing companies in a hostile environment.

Next, Ana Roque and José Figueiredo address corporate ethical codes. Although it has been recognized as a key factor in the effectiveness of ethical codes, the process used to develop a global corporate code of ethics is one of the Academy's least-documented topics.

The construction of significant brands through social networks is the subject of the article by Pablo Medina Aguerrebere, Toni González Pacanowski and Eva Medina. Implementing an efficient corporate communication strategy has become a priority for all hospitals interested in building a meaningful brand. For this purpose, most of these organizations turn to social networks such as Facebook, Twitter or YouTube. Through the use of these platforms, hospitals improve and streamline their relationships with stakeholders, especially patients, employees and media companies. This literature review article aims to better understand how hospitals should manage these platforms to build a meaningful brand based on human values.

Julio Padilla and Christiam Mendez conducted a study on exports from emerging countries. Its objective was to create a reference model that an emerging country can use to develop a strategic and tactical plan for its export potential based on information provided by digital media.

Next, Tom Okot, Mariana Campos Guilcrits and Enrique Monge Navarro address Industry 4.0 in Costa Rica. Industry 4.0 is a combination of technologies such as robotics, big data, the Internet of Things (IoT) and artificial intelligence (AI). Latin America has focused mainly on the development of IoT technology. Costa Rica ranks second in terms of IoT implementation, which has mainly focused on environmentally sustainable innovations.

Alicia Martín García examines product placement as an efficient marketing tool within the media mix: the case of General Motors and Transformers. Product placement has existed in its most primitive form since the dawn of cinema. Now, due to the saturation of conventional advertising, this technique has reached its zenith, with brands appearing in an environment without competition.

The final article, by Patricia Vargas Portillo, deals with virtual reputation. One of the keys to a company's intangible value is having a good reputation. A company's reputation is projected into the traditional or physical world but also appears in the virtual space. Its importance has led to the creation of tools to quantify and monitor it. Certain decisions can have a significant impact on a company's reputation. Thus, it is worth examining the integration of self-discipline systems that, depending on the circumstances in each case, could lead to a substantial improvement in virtual reputation.

Two book reviews that deal with issues of notable relevance are included. The first is authored by Gisela Ammetller Montes, and the second is authored by Patricia Vargas Portillo.

I wish to convey our sincere thanks to the authors for their efforts, to the editorial committee and the reviewers for their collaboration and to the readers for their warm welcome. I do not want to end the presentation of this new issue of Harvard Deusto Business Research without stressing that together, we will overcome the complicated situation related to the global pandemic through the collaboration and responsibility of each and every one of us. Thank you all very much.

The influence of subjective well-being on the job satisfaction of the Peruvian Millennials

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Abstract

This study seeks to understand the relationship between subjective well-being and job satisfaction among Peruvian millennials, in addition to determining the influence of components of subjective well-being, such as work-life balance, opportunity to demonstrate abilities, socialization, and possibility of learning. This study is based on the results of a questionnaire, which included questions to measure the different variables, applied to more than 300 workers in companies in Lima, Peru, from the commercial, industrial, and service sectors. The results indicate a close relationship between job satisfaction and subjective well-being. Because people are unique, organizations must be attentive to the needs of each worker's personal life and the effects of personal life on job satisfaction and must be willing to create balance and provide workers with time and space to resolve situations that arise in their lives.

Key words

Job Satisfaction; Subjective well-being; Millennials; Personality Traits; Generational Differences.

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1. Introduction

The economically active population (EAP) of Peru is the country's workforce and encompasses the employed and the unemployed job seeking population. This first subsector includes people who are working, while the job seeking population includes those who are actively looking for a job (INEI, 2017).

Likewise, within the EAP, the following are the three main leading economic sectors in the country: services, extractive and trade (BCRP, 2019).

This study focuses on the millennial generation, also called millennials (Strauss and Howe, 2000) or Generation Y. Given that the age cohort for millennials is not well defined, that proposed by Myers and Sadaghiani (2010) has been chosen for this work, establishing millennials as those born between 1979 to 1994. Using this age range, which has been widely accepted by the scientific community, allows the comparison of this study with others of the same nature.

Notably, in Peru, 29% of the total population is between 26 and 41 years old, which is equivalent to approximately 8 million millennials; 40% have or are studying for a university or technical degree, and 41% have completed high school. This implies that there is a strong and growing presence of millennial workers in Peru (Villanueva and Fowks, 2017).

When analyzing the composition of the EAP, according to the National Institute of Statistics and Informatics of Peru (INEI), within the EAP in 2018, millennials represented 49.83%. A total of 49.74% were women, and 50.26% were men (INEI Peru, 2018). These data indicates that the economically active Peruvian population is composed of a very representative percentage of millennials.

The projections estimated by the CEPLAN (National Center for Strategic Planning), which analyzes possible scenarios for Peru, provide trends for the next fifteen years. By 2030, 60% of Peruvians will belong to the 'Y' and 'Z' generations (Villanueva and Baca, 2016).

These workers have special characteristics that differentiate them from the rest of the population. It is in this context that interest arises in studying the EAP, specifically millennials in Lima, who work in the commercial, services and industry sectors.

Given that work occupies much of an individual's day, it is important to study the relationship between subjective well-being and job satisfaction. Personal life, environmental circumstances and society are important indicators because subjective well-being can reflect what happens in a society (Diener, Inglehart and Tay, 2013; Semih and Tugba, 2016; Unanue, Gómez, Cortez, Oyanedel and Mendiburo, 2017).

Likewise, the lack of job satisfaction leads to various work problems, such as high turnover, absenteeism, and a poor work environment (Oosthuizen, Munro and Coetzee, 2016; Ortega, Albaladejo, Villanueva, Astasio and Domínguez, 2004; Zhou and George, 2001; Riego de Dios, 2020), as well as individual problems, such as negative impacts on physical and mental health (World Health, 2010; Cardoso, 1994; Faragher, Cass and Cooper, 2005; Mansilla, Garcia and Gamero, 2010; Junco, 2008; Jensen, Wieclaw, Munch-Hansen, Thulstrup and Bonde, 2010).

In addition, one of the most important reasons why people leave their jobs is job dissatisfaction (Oosthuizen et. Al., 2016). In recent years, Peru has had a high job turnover rate when compared to that of other Latin American countries; with an average of 20%, it is above the regional average (10.9%), according to a report by the consulting firm PWC (2018). This is a problem that merits in-depth study.

2. Theory and hypothesis

2.1 Job satisfaction and subjective well-being

Locke (1970) defined job satisfaction as a pleasant state or a positive emotional state. In addition, he measured it as the subjective perception of the person: the attitude of the employee based on the beliefs and values he or she has in his or her work. This current study proposes that satisfaction is a subjective perception that workers have had. Such is the case of Weiss (2002), who argues that job satisfaction is a positive assessment that an individual makes about his or her work. A recent proposal refers to the fact that work experiences of employees provide self-satisfaction (Alvinus, Johanson and Larsson, 2017).

As a psychological contribution, Weinert (1985) emphasized psychological aspects as well as affective and cognitive reactions as factors that can lead to increases in job satisfaction. He proposed that job satisfaction is achieved by the reactions and feelings that members of the organization have in their work. Hellriegel and Solum (2005) stated that psychological situations explain an individual's emotions regarding work.

Personality also plays an important role in job satisfaction. Judge and Heller (2002) investigated five personality characteristics and their influence on satisfaction: extraversion, openness to experience, responsibility, agreeableness and emotional instability or neuroticism. The results of the research showed a direct relationship between personality traits and the level of worker satisfaction. Employees who are behaviorally and emotionally stable, extroverted and responsible seem to be happier at work because they are more likely to achieve effective results.

On the other hand, dissatisfied workers tend to leave jobs, leading to high job turnover (Oosthuizen, et al., 2016). Turnover is a reality that concerns organizations, especially those that show high rates. Each worker who leaves an organization does so at a high cost to that organization, for example, training time, hours invested in supervision, technical knowledge and, in some cases, confidential information, which might be taken. It also has an impact on the work environment because it destabilizes or worries the people who remain (Junco, 2008). Finding a replacement takes time and involves an additional expense in recruiting and hiring.

In addition, absenteeism increases; whether it manifests as absence from work or unjustified delays that negatively affect productivity, desired goals are not achieved (Ortega et al., 2004).

Another consequence is a negative work environment because an unsatisfied person may exhibit poor daily behavior and assume an uncooperative and often confrontational attitude. This behavior impacts coworkers, generates a negative work environment, and decreases quality

because work is performed reluctantly (Mamani, Obando, Uribe-Malca and Vivanco, 2007; Adenji, 2011).

The relationship between subjective well-being and job satisfaction, based on the premise that work is one of the key aspects of a worker's life, is very important. With this in mind, it is almost impossible to ignore aspects of a worker's life that occur in nonwork environments that affect the work life of the individual; importantly, humans are a systemic unit in which all the elements are interrelated.

A strong relationship was observed between job satisfaction and subjective well-being (Diener, 1984; Diener, Inglehart and Tay, 2013); however, in terms of a causal relationship between the two variables, there is no consensus on the direction of causality. To define the meaning of this relationship, several longitudinal studies and meta-analyses have been performed (Bowling, Eschleman and Qiang, 2010; Unanue, Gómez, Cortez, Oyandel and Mendiburo, 2017); however, different conclusions were obtained.

In the work by Rode (2004), the possible directions of causality found in the literature are either "top down", when subjective well-being affects job satisfaction (Bower, 1981; Judge and Hulin, 1993), or "bottom up", when job satisfaction affects subjective well-being (Andrews and Witt, 1976; Brief, Butcher, George and Link, 1993).

Two important research documents to support this perspective are the works by Judge and Watanabe (1993) and Cohn (1979). The first emphasizes that subjective well-being affects job satisfaction. This longitudinal study demonstrated how at a single given moment, a two-way relationship exists, but when extending the study to a period of five years, the effect of subjective well-being at work has a significantly greater role. Similarly, the second study showed that the relationship is more dependent on subjective well-being and can affect early retirement decisions in the workforce.

2.2 Millennials

The millennial generation includes all people who were born from 1979 to 1994. This range encompasses people currently aged 26 to 41 years (Myers and Sadaghiani, 2010; Robinson and Stubberud, 2012; Nichols and Travis, 2015; Bodenhausen and Curtis, 2016; Stewart and Oliver, 2017).

The literature on the millennial generation is relatively new, focusing mainly on providing recommendations to adapt the workspace for increased job satisfaction. In addition, studies have focused on companies attracting and retaining talent.

Among the main characteristics of this generation is that they are digital natives, which gives them a greater ability to understand technology and, therefore, allows them to quickly integrate it into their lives (Kim, 2018).

Job satisfaction among millennials is distinguished with respect to that of other generations. Susaeta, Pin, Idrovo, Espejo, Belizón, Gallifa and Pedrozo (2013) conducted a survey of various countries worldwide and discovered that among the most relevant factors that influence millennials at work is their relationship with their boss, appreciation of their ideas, learning at work, work-life balance and a good relationship with coworkers.

Furthermore, a study by García, Gonzales, Gallo and Roman (2018), conducted with millennial workers from different economic sectors in Colombia, showed that the involvement of this type of worker within the organization is key to improving job satisfaction as it give these people opportunities to demonstrate their talents within the company.

In Mexico, another survey was conducted that showed that work flexibility is highly valued by millennials because it helps improve their work-life balance, thus generating a significant increase in job satisfaction (Baeza, 2018).

The same result was observed in a study by Pinchera and Arenas (2016), conducted with Chilean millennial workers, reaffirming the importance of work-life balance as a fundamental factor to increase job satisfaction, in addition to providing these workers with new opportunities within the workplace.

Other authors have studied important aspects of the millennial generation, as mentioned below:

Regarding sociability, at work, they expect close relationships and frequent feedback from supervisors. They prefer to work in teams, partly because they perceive that groups are more fun to work with but also because they like to avoid risk (Alsop, 2008; Gursoy, Maier and Chi, 2008).

Borges, Manuel, Elam and Jones (2010) reinforced this idea when comparing millennials with Generation X. They discovered that millennials have more social needs and stronger relationships, unlike their colleagues belonging to Generation X. They also concluded that this aspect is strong among them and that millennials do not lose focus in their work by having coworkers they also consider friends.

With respect to the learning experience, millennials are not dependent on standardized learning methods. Effective and affective experiences are derived from their personal learning experience. In addition to this, they can define their learning priorities or preferences. To this is added that millennials are capable of doing this on their own because they have methods and ways of extracting knowledge and information and carrying out deliberate learning.

In addition, millennials are the most qualified generation because they seek to further their education (Gonçalves, Martins and Rocha, 2016); they are also the most globalized generation (Kowske, Rasch and Wiley, 2010), have a greater multitasking capacity and can manage several sources of information at the same time in a parallel and efficient way (Anderson, Baur, Griffith and Buckley, 2017). This also contributes to a different experience in learning by millennials.

Regarding their personal goals and achievements, many studies have shown that the personal goals of millennials are very important to them. One of these studies was conducted by Ng,

Schweitzer and Lyons (2010), who mentioned that millennials have great expectations regarding their future career and personal goals.

Regarding work-life balance, for millennials, Roche (2017) mentioned that they value work-life balance so much that they prefer part-time jobs. In addition, Sao (2018) mentioned that millennials are concerned with living a good life, which implies that they are willing to sacrifice their time and energy, earn enough money and live comfortably. However, flexibility is also necessary to have work-life balance.

In addition, Almeida and Llach (2019) mentioned that millennials prefer an “integration” between work and family; that is, they can easily work from home or stay in touch with their family at any time. This generation highly values autonomy and independence in the workplace, which usually translates into the desire to work outside the limits of a schedule.

Regarding Peruvian millennials at work, according to a study conducted by Deloitte in 2017, 50% of Peruvian millennials preferred to work full time, and 49% preferred to work as a freelancer (Deloitte, 2018). These data, in comparison with global data using the same survey, show that in Peru, the permanence of millennials in their current work is much greater.

Likewise, 40% of the millennial population has or is studying for a university or technical degree, and only 41% have only a high school diploma. Fifty-three percent of them are married or in a partnership, and 43% are single. Seventy-one percent already have children: one child (42%), two children (32%) and three children (27%). Therefore, they quickly assume great economic responsibility. Overall, 51% work, but their income is low (70%), with only 29% and 2% earning medium and high incomes, respectively. They mostly belong to the low (59%), middle (27%) and high (14%) socioeconomic levels (Villanueva and Fowks, 2017). These data indicate that millennials in Peru have a different reality than those in other countries, meriting further study.

In view of the literature, we propose the following hypotheses regarding Peruvian millennials.

H1: The greater the work-life balance, the higher is job satisfaction.

H2: The greater the socialization, the higher is job satisfaction.

H3: The greater the possibility of learning, the higher is job satisfaction.

H4: The greater the opportunity to demonstrate abilities, the higher is job satisfaction.

3. Methodology

3.1 Data collection

Because Peru does not have a database available regarding our topic of interest, it was decided to conduct a survey through questionnaires and scales that were employed in previous studies. The survey consisted of five sections, corresponding to subjective well-being, the “Big Five” personality traits and job satisfaction.

In the first section, the questions measured subjective well-being. These were adapted from the ESS (European Social Survey) Round 6, in which questions were asked about the personal and social well-being of the interviewees (ESS, 2012). In the section corresponding to personality traits (Big Five), the scale proposed by John, Donahue and Kentle (1991) was used, i.e., the BFI (Big Five Inventory), which consists of 44 items with phrases that contain adjectives that characterize each personality trait. Job satisfaction was measured with the items included in the survey by Macdonald and MacIntyre (1997) because the scale is generic and can be applied to workers on different hierarchical levels.

Then, letters requesting participation were sent to the general managers of 55 companies in the commercial, industrial and service areas in the city of Lima. After approval of the letter, the survey was conducted anonymously with the company's workers. Survey administration began in November 2016 and ended in March 2018. For data collection, physical and virtual surveys were used to reach the millennial population in each company that agreed to participate. As a result of this procedure, we collected 326 surveys.

For data collection, certain criteria, such as the origin of the workers surveyed, were established prior to administering the survey. The established criteria also included the following: the companies in the sample should be from the private sector, and the survey should apply to a single period of time. The survey was free and anonymous, and participants were informed that their superiors would not have access to the answers.

3.2. Measurement of the variables

Regarding the measurement of the variables, the explanatory variables in the model corresponded to components of subjective well-being included in the survey used for this research. Each variable was scored on a Likert scale, but not all variables had the same scale. Annexes 1 and 2 provide the variables used and the corresponding questions in the survey.

The main dependent variable was the job satisfaction index. The variables of interest and, therefore, the independent variables were the subjective well-being index and well-being components.

Notably, the aforementioned indices were constructed in such a way that the percentage represents the sum of the answers given with respect to the maximum achievable score. This strategy takes into account the number of questions answered in the survey because the maximum value that can be obtained depends on the total number of questions answered.

In addition, we added control variables, such as sex (dummy variable – 1 for male and 0 for female), age, marital status (dummy variable – 1 for married and 0 for not married), children (dummy variable – 1 for children and 0 for no children), education, type of contract, and time with the organization, and a constant to try to moderate those variables that can influence the results.

Additionally, the variables of the "Big Five", i.e., conscientiousness, neuroticism, agreeableness, extraversion and openness, also functioned as control variables and were treated as independent variables.

The central variables of this research were job satisfaction and subjective well-being. To analyze the relationships between these variables, the constructs were defined as indices of the questions corresponding to each one in the applied survey. These indices were constructed with the following formulas:

Job satisfaction index

$$\text{Job satisfaction index} = \frac{\sum_{i=1}^9 s_i}{4(9 - n_1)}$$

where

s_i : Variables that correspond to job satisfaction; and

n_1 : Number of unanswered questions in the job satisfaction section

Personal satisfaction index

$$\text{Personal satisfaction index} = \frac{\sum_{i=1}^{17} p_i}{7(1 - n_4) + 5(3 - n_4) + 4(13 - n_4)}$$

where

p_i : Variables that correspond to personal satisfaction; and

n_4 : Number of unanswered questions in the personal satisfaction section

3.3. Validation of the survey

To validate the survey, a brief analysis of the psychometric properties of the instruments was performed. The consistency of the two surveys and their reliability were reviewed. Regarding missing data, 100% effectiveness was obtained, as no missing data were found in any survey.

Table 1

Reliability statistics for subjective well-being

Cronbach's alpha	Cronbach's alpha based on the standardized items	N of items
0.744	0.667	18

Source: Own elaboration.

For the reliability analysis, Cronbach's alpha was used, providing a measure of reliability for the variables that are related to a construct. With respect to the subjective well-being index, a Cronbach's alpha of 0.744 was obtained, indicating high reliability and internal consistency of the scale. Additionally, the job satisfaction index also obtained a high Cronbach's alpha value (0.815).

Table 2

Reliability statistics of job satisfaction

Cronbach's alpha	Cronbach's alpha based on the standardized items	N of items
0.815	0.759	9

Source: Own elaboration.

3.4. Data analysis

3.4.1. Descriptive statistics

As seen in Table 3, a brief statistical summary of the main indices was performed to demonstrate the ability to test the hypotheses. The job satisfaction index had a higher score, on average, than subjective well-being.

Table 3

Description of the data

Indices	N	Min.	Max.	Mean	Standard deviation	Variance	Coefficient of variation
Job satisfaction	326	0.281	1.000	0.768	0.113	0.013	0.148
Subjective well-being	326	0.513	0.938	0.749	0.073	0.005	0.098

Source: Own elaboration.

For both indices, as seen in Table 4, women on average had greater job satisfaction, and within the hierarchical level of the company, trainees had greater job satisfaction. Married workers and workers who had been with the company for less than 2 years were also the most satisfied in the workplace.

Table 1

Description of the data for job satisfaction

Job Satisfaction	Mean	N	Standard deviation	Variance	Coefficient of variation
Sex					
Female	0.771	169	0.111	0.012	0.143
Male	0.765	157	0.116	0.013	0.152
Hierarchical level					
Operator	0.736	55	0.103	0.106	0.139
Trainee	0.82	17	0.092	0.008	0.112
Administrative	0.775	182	0.112	0.12	0.144
Manager	0.769	72	0.114	0.131	0.149
Marital status					
Single	0.765	265	0.112	0.012	0.144
Married	0.779	61	0.125	0.015	0.161
Time with company					
Less than 2 years	0.780	173	0.114	0.013	0.147
Between 2 and 7 years	0.763	127	0.105	0.011	0.137
More than 7 years	0.718	26	0.135	0.018	0.188
Religiosity					
None	0.802	30	0.111	0.012	0.139
Somewhat religious	0.761	191	0.113	0.013	0.148
Quite religious	0.777	82	0.108	0.012	0.139
Very religious	0.804	23	0.125	0.016	0.156

Source: Own elaboration.

As seen in Table 5, for the subjective well-being index, men, on average, had greater well-being. In addition, within the hierarchical level of the company, trainees had greater subjective well-being, as did married workers. Similar to that seen for the job satisfaction index, workers who had been with the company for less than 2 years showed greater subjective well-being.

Table2

Description of the data for subjective well-being

Subjective well-being	Mean	N	Standard deviation	Variance	Coefficient of variation
Sex					
Female	0.745	169	0.073	0.005	0.098
Male	0.754	157	0.074	0.005	0.098
Hierarchical level					
Operator	0.734	55	0.066	0.004	0.090
Trainee	0.769	17	0.064	0.004	0.083
Administrative	0.749	182	0.072	0.005	0.096
Manager	0.763	72	0.077	0.006	0.100
Marital status					
Single	0.747	265	0.073	0.005	0.097
Married	0.758	61	0.076	0.006	0.100
Time with company					
Less than 2 years	0.751	173	0.073	0.005	0.097
Between 2 and 7 years	0.751	127	0.072	0.005	0.097
More than 7 years	0.732	26	0.080	0.006	0.109
Religiosity					
None	0.762	30	0.057	0.003	0.075
Somewhat religious	0.731	191	0.074	0.005	0.101
Quite religious	0.778	82	0.063	0.004	0.080
Very religious	0.776	23	0.075	0.006	0.097

Source: Own elaboration.

3.4.2. Correlation matrix

As seen in Tables 6 and 7, correlation matrices were created for both regressions. These matrices serve to measure the degree of linear relationship between the variables and to eliminate both the possibility of the existence of multicollinearity between the explanatory variables and the possibility that the endogenous variable has a distribution very similar to some of the exogenous variables. For both matrices, all the values shown are less than 0.5, a favorable result that indicates there is no autocorrelation.

Table 3

Correlation matrix for job satisfaction and subjective well-being components

#	Components	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Job satisfaction index	1.000													
2	Meets with friends	0.139	1.000												
3	Number of trusted friends	0.084	0.110	1.000											
4	Feels safe in the neighborhood	0.085	0.022	0.165	1.000										
5	Health	0.230	0.067	0.115	0.294	1.000									
6	Religious	0.076	0.038	0.039	0.005	0.053	1.000								
7	Optimistic	0.264	0.015	0.132	0.329	0.272	0.051	1.000							
8	Decide freely about my life	0.158	0.121	0.165	0.164	0.288	0.008	0.305	1.000						
9	Able to demonstrate what capable of doing	0.274	0.040	0.052	0.186	0.091	0.062	0.272	0.369	1.000					
10	Can solve problems quickly	0.232	0.002	0.151	0.112	0.339	0.049	0.275	0.361	0.336	1.000				
11	Meet expectations every day	0.293	0.084	0.028	0.123	0.201	0.066	0.300	0.388	0.354	0.420	1.000			
12	Feel useful to other people	0.305	0.024	0.038	0.142	0.275	0.083	0.384	0.392	0.314	0.412	0.415	1.000		
13	Learn new things every day	0.192	0.073	0.126	0.086	0.125	0.039	0.283	0.164	0.154	0.198	0.189	0.325	1.000	
14	Feel appreciated	0.344	0.124	0.049	0.073	0.208	0.024	0.243	0.143	0.229	0.274	0.231	0.325	0.200	1.000
15	Treated with respect	0.241	0.040	0.024	0.103	0.173	0.064	0.224	0.232	0.258	0.226	0.120	0.348	0.387	0.262
16	Work-life balance	0.458	0.020	0.066	0.054	0.276	0.121	0.132	0.116	0.055	0.203	0.210	0.225	0.198	0.396
17	Responsible	0.163	0.029	0.107	0.102	0.163	0.090	0.110	0.171	0.109	0.199	0.227	0.236	0.110	0.232
18	Neurotic	0.285	0.096	0.056	0.226	0.323	0.022	0.252	0.268	0.163	0.314	0.226	0.313	0.098	0.257
19	Agreeable	0.187	0.055	0.036	0.006	0.017	0.184	0.069	0.081	0.070	0.129	0.162	0.153	0.105	0.153
20	Extrovert	0.147	0.058	0.165	0.074	0.177	0.024	0.300	0.131	0.058	0.243	0.177	0.200	0.203	0.091
21	Openness to experience	0.036	0.075	0.104	0.037	0.022	0.058	0.192	0.114	0.077	0.117	0.188	0.159	0.253	0.061
22	Sex	0.009	0.249	0.003	0.064	0.026	0.105	0.011	0.101	0.024	0.018	0.134	0.012	0.073	0.018
23	Age	0.051	0.061	0.121	0.053	0.022	0.011	0.015	0.119	0.053	0.039	0.093	0.011	0.072	0.045
24	Marital status	0.072	0.162	0.060	0.005	0.119	0.086	0.064	0.184	0.125	0.140	0.062	0.211	0.073	0.077
25	Has children	0.085	0.040	0.196	0.002	0.039	0.031	0.060	0.053	0.100	0.056	0.021	0.068	0.130	0.029
26	Years of education	0.054	0.020	0.099	0.053	0.133	0.051	0.176	0.073	0.005	0.134	0.116	0.199	0.084	0.093
27	Type of contract	0.030	0.085	0.046	0.062	0.058	0.084	0.091	0.075	0.054	0.098	0.113	0.022	0.016	0.132
28	Time with the organization	0.131	0.006	0.052	0.109	0.060	0.034	0.127	0.046	0.023	0.033	0.002	0.147	0.018	0.019

Source: Own elaboration

#	Components	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1	Job satisfaction index														
2	Meets with friends														
3	Number of trusted friends														
4	Feels safe in the neighborhood														
5	Health														
6	Religious														
7	Optimistic														
8	Decide freely about my life														
9	Able to demonstrate what capable of doing														
10	Can solve problems quickly														
11	Meet expectations every day														
12	Feel useful to other people														
13	Learn new things every day														
14	Feel appreciated														
15	Treated with respect	1.000													
16	Work-life balance	0.264	1.000												
17	Responsible	0.191	0.133	1.000											
18	Neurotic	0.288	0.277	0.323	1.000										
19	Agreeable	0.231	0.113	0.301	0.282	1.000									
20	Extrovert	0.231	0.070	0.158	0.246	0.273	1.000								
21	Openness to experience	0.099	0.003	0.192	0.158	0.334	0.291	1.000							
22	Sex	0.038	0.103	0.082	0.153	0.120	0.075	0.063	1.000						
23	Age	0.021	0.043	0.033	0.060	0.053	0.005	0.050	0.030	1.000					
24	Marital status	0.081	0.047	0.018	0.137	0.026	0.157	0.027	0.112	0.332	1.000				
25	Has children	0.067	0.123	0.013	0.046	0.018	0.007	0.018	0.200	0.400	0.399	1.000			
26	Years of education	0.064	0.101	0.029	0.051	0.023	0.039	0.067	0.228	0.024	0.136	0.115	1.000		
27	Type of contract	0.035	0.071	0.045	0.015	0.024	0.104	0.147	0.030	0.058	0.087	0.029	0.065	1.000	
28	Time with the organization	0.143	0.057	0.081	0.204	0.106	0.087	0.073	0.186	0.400	0.157	0.222	0.127	0.222	1.000

Source: Own elaboration

Table4

Correlation matrix for the indices and control variables

#	Components	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Job satisfaction index	1.000														
2	Subjective well-being index	0.497	1.000													
3	Responsible	0.163	0.249	1.000												
4	Neurotic	-0.302	-0.447	-0.343	1.000											
5	Agreeable	0.234	0.257	0.362	-0.033	1.000										
6	Extrovert	0.133	0.270	0.192	-0.220	0.293	1.000									
7	Openness to experience	-0.066	0.168	0.212	-0.191	0.355	0.289	1.000								
8	Sex	-0.007	0.063	-0.098	-0.063	-0.138	-0.107	0.052	1.000							
9	Age	0.075	0.046	0.055	0.082	0.074	0.053	0.052	0.046	1.000						
10	Marital status	0.074	0.102	0.027	-0.123	0.027	0.156	-0.036	0.092	0.304	1.000					
11	Has children	-0.091	-0.006	0.019	-0.044	-0.023	0.021	-0.009	0.210	0.381	0.399	1.000				
12	Years of education	0.125	0.208	-0.012	-0.056	0.043	0.033	0.067	-0.209	0.024	0.128	-0.125	1.000			
13	Type of contract	-0.052	-0.150	-0.013	-0.018	0.061	0.103	-0.122	-0.006	0.078	0.081	0.026	0.084	1.000		
14	Time with organization	0.174	-0.100	-0.017	0.193	-0.093	-0.068	-0.089	0.169	0.395	0.127	0.219	-0.133	0.236	1.000	
15	Religious	-0.037	0.219	0.095	-0.017	0.160	0.032	-0.033	-0.069	0.026	0.073	0.058	0.076	0.086	0.032	1.000

Source: Own elaboration

3.4.3. Main methodology

Because this is a cross-sectional, nonexperimental study and given the objective of hypothesis testing, the econometric method of ordinary least squares with robust errors, which is expressed as a function or functional relationship through a predictive equation, was used (Greene, 2000).

Notably, the variables were normalized to values between 0 and 1; for this, each construct was divided by the variables constructing it; by four, for the variables that had that number of response options in the survey; and, by seven, for the variable 'Meets with friends' because this was the maximum number of response options.

This model included the indicators corresponding to the construct of subjective well-being used as explanatory variables, in addition to the "Big Five" personality trait variables and the control variables.

4. Results

Table 8 shows that the effect of subjective well-being on job satisfaction in millennials was significant, and when measured using an index, the subjective well-being index increased by one

unit when the job satisfaction index increased by 0.638 units. Within the “Big Five”, responsibility and openness to experience were significant. Thus, when an employee is more responsible and more open to experience, their job satisfaction is higher.

Additionally, among the control variables, women had greater job satisfaction. In addition, at an older age, there was an increase in job satisfaction.

Table 8

Job satisfaction and the subjective well-being index

Job satisfaction	Coefficient	P> t
Subjective well-being index	0.638***	0.000
<i>Big Five</i>		
Responsible	0.0256*	0.022
Neurotic	-0.0111	0.694
Friendly	0.0173	0.343
Extrovert	0.0311	0.299
Openness to experience	0.0678*	0.039
<i>Controls</i>		
Sex	-0.0503*	0.059
Age	0.0681*	0.075
Marital status	0.0195	0.545
Has children	-0.0268	0.346
Years of education	0.0147	0.727
Type of contract	-0.0108	0.861
Time with the organization	0.0317	0.896
Religious	0.0642	0.272
Constant	0.250*	0.023
N		326
R^2		0.2744

*P < 0.10; **P < 0.05; ***P < 0.01

Source: Own elaboration

Based on Table 9, among the components of subjective well-being, the factors that were significant are meeting with friends, number of trusted friends, freely deciding about my life, being able to demonstrate what I am capable of doing, work-life balance; and learning new things every day. These data indicate that with improvements in these variables, the job satisfaction of workers will increase.

In addition, both the “Big Five” and the significant control variables in the first column were equally important in the regression model.

Table 5

Job satisfaction components of personal satisfaction

Subjective well-being index	Coefficient	P> t
<i>Components of the subjective well-being index</i>		
Satisfaction with life	0.131	0.532
Happy	0.0003	0.995
Meets friends	0.0954*	0.075
Number of trusted friends	0.0156**	0.013
Feels safe in the neighborhood	0.0364	0.237
Healthy	0.0723	0.023
Optimistic	0.0209	0.055
Can freely decide about my life	-0.0117*	0.082
Can demonstrate what I am capable of doing	0.0310**	0.001
When things go wrong, I can solve problems quickly	0.0366	0.476
Achieve what is expected every day	0.0167	0.074
I am useful to other people	0.0921	0.846
Learn new things every day	0.0745***	0.009
Feel appreciated by people around me	0.0106	0.184
Feel that people treat me with respect	0.0451	0.617
Balance between work and life	0.0529***	0.000
<i>Big Five</i>		
Responsible	0.0246**	0.023
Neurotic	-0.0881	0.942
Agreeable	0.0183	0.353
Extrovert	0.0114	0.35
Openness to experience	-0.0126*	0.071
<i>Controls</i>		
Sex	-0.0227*	0.054
Age	0.0436*	0.034
Marital status	0.0436*	0.808
Has children	-0.0204	0.213
Years of education	0.0668	0.504
Type of contract	-0.0270	0.865
Time with the organization	0.0182	0.651
Religious	-0.0256	0.782
Constant	0.322**	0.022
N		326
R ²		0.3671

*P < 0.10; **P < 0.05; ***P < 0.01

Source: Own elaboration

5. Discussion

The results show that the impact of work-life balance is a relevant factor in this estimation, a result that is consistent with those reported in previous studies (Rodríguez and Dabos, 2017; Sirgy and Lee, 2018; Brough et al., 2014; Deery and Jago, 2015). This balance is very important for millennial workers, who value free time; however, when the balance is disrupted, dissatisfaction and lack of commitment are generated, resulting in the pursuit of new job opportunities (Capell, 2018).

This result coincides with other research, previously cited, on the importance of work-life balance in Latin American millennials (Pinchera, 2016; Susaeta, 2013). However, when a boss assumes the role of a moderator between life and work conflicts, workers perceive this favorably because they sense that their boss takes an interest in their well-being and feel greater satisfaction (Hsu, 2011; Brough, Timms, O'Driscoll, Kalliath, Siu, Sit and Lo, 2014). Notably, maintaining a work-life balance is not always sufficient; in some cases, it is necessary to relax this balance and give the worker the time and space to address personal difficulties arising in their domestic reality.

Recent research has introduced the concept of i-deals, which are decisions made by an organization based on the idiosyncrasy of the worker, that is, his or her circumstances, needs and personal reality (Hornung, Rousseau and Glaser, 2008). Although i-deals are a means to extend aid to workers who need it, they could also negatively impact the work environment because such privileges are available to workers who do not need them or have not requested them, thus affecting the sense of distributive justice of the workers. Coworkers who perceive these privileges as an injustice often file complaints to restore distributive equity (Marescaux, Sels and De Winne, 2016).

The opportunity to demonstrate ability represents an important attitude towards life and was confirmed as relevant in the results of this study. In previous studies, the importance of this factor in the job satisfaction of Latino millennials was also affirmed (Garcia, 2018). When a company gives their employees the opportunity to work, contribute, and engage, it trusts in the capabilities of the person and recognizes him or her, fostering job satisfaction. However, not everyone comes to work with this attitude. Does an organization have to give an employee that opportunity, or does the employee earn it, based on effort and performance? The latter is more likely, as opportunities are granted to people who are more willing to respond as requested by the company.

Another aspect of subjective well-being is the possibility of learning new things every day; notably, everything is a challenge for the millennial worker because he or she learns differently from workers of other generations. This finding is consistent with other studies that propose alternative ways of learning for millennials (Anderson et al., 2017; Pineda and Berdhardsson, 2012); however, the Latin American literature does not cover this factor in great depth. Future research should be conducted due to its importance in job satisfaction among millennials.

This observation implies that organizations have the challenge of designing various learning methods for millennials. Among these methods would be group learning; searching, instead of locating and absorbing information individually from a single source; active learning based on real and simulated experiences that include frequent opportunities for reflection; and the continuous use of multimedia (Lenhart, Madden and Hitlin, 2005).

Promoting socialization for millennials is important, as having trusted friends and meeting with them is very beneficial to the health and emotional well-being of employees, as long as there is

continuity (Barrett and Dunbar, 2013). Borges et al. (2010) also claim that millennials value this interaction with their friends, a claim that is confirmed in the present study. They also showed that they millennials do not lose focus in their work by having colleagues who they also consider friends.

6. Conclusion

In conclusion, this study helped better understand subjective well-being and the factors affecting it and which factors are the most important in improving job satisfaction among millennials. Despite certain limitations in the research, such as collecting data from a single point in time and the limited number of companies that could be surveyed, it is hoped that this study will encourage other researchers to further study the topic because the workforce has a generational diversity with which we must know how to manage and thus foster a sense of belonging. The results also highlight the importance of knowing the subjective well-being of workers, given its influence on job satisfaction.

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Heterogeneity in Family Firms: exploring governance configurations and their effect on strategies

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Abstract

This research explores in greater depth the importance of considering the heterogeneity between family businesses so as to better understand the differences in their strategic behavior, performance and business results. With this, we attempt to contribute to the theories on the relationship between corporate governance and strategic management in the field of family business research.

Our study identifies the different configurations that may be adopted in the ownership structures and the management and governance bodies of family firms, analyzing how these configurations are related to the firm's strategic outcomes. Using a sample of 111 family firms, we perform a cluster analysis that allows us to determine distinct types of family businesses based on a set of dimensions regarding the characteristics of their governance bodies, both in business and in the family, as well as their ownership structure and degree of family involvement in management tasks. We then link the different types found with the profiles of managers, the repertoire of strategies used by these companies, and the differences in obtaining results in recent years.

Key words

Family firms; heterogeneity; configurations; strategy; business results.

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1. Introduction

The study of family businesses has often been approached through the comparison of family-owned and non-family firms, assigning different characteristics to each one (Sharma and Nordqvist, 2008). Nevertheless, despite the growing volume of research that has tackled the enormous heterogeneity in family firms' characteristics, it is still necessary to delve deeper into how this significant variability in ownership structures, governance systems, as well as in the degree to which families are involved in the company, should be taken into account to better understand the behavior and decisions of family firms.

In this paper, we address this challenge by pursuing two related objectives. First, we analyze the different features of a sample of family businesses to seize this heterogeneity by means of typologies (governance configurations) that are not only comprehensive (i.e., that capture the main dimensions and sources of diversity in family firms) but also manageable and easy to recognize in the practical world. Secondly, we explore how the different types of family businesses identified are useful for understanding their differences in performance and strategic behavior.

To date, research on the heterogeneity of family businesses has mainly considered variables, such as the degree of family involvement, the developmental stages, or the degree to which firms' governing bodies are structured, but few studies have linked these features with the repertoire of strategies that family firms actually use.

Thus, in this paper, we start by reviewing the literature on the multidimensional nature of family firms, in order to identify the main dimensions that could be helpful for examining their heterogeneity. Next, by means of grouping methods (cluster analysis), we use the dimensions considered to be the most relevant by the literature to establish the groups of family firms that share similar features (within each group) but also differ significantly from the other groups. Finally, we analyze the differences in strategic behavior and performance that can be observed among the firms belonging to each identified cluster and discuss the possible relationships between their configurations and the resulting strategic decisions. The purpose of all this is to expand the existing research with evidence of typologies of family businesses and show how they are connected with the study of family firm strategic behaviors.

2. The heterogeneity of family firms: Determining the relevant variables

Family businesses are a complex phenomenon where different spheres of influence interact. Therefore, our first step was to examine the different types of conceptual contributions in the family business literature to obtain a set of dimensions with which to characterize the different types of family firms and their evolutionary stages that can serve to explain the different realities within the full range of family businesses and can have important implications for their strategic behavior.

We reviewed the main existing models in the literature to identify the common elements that would enable us to characterize the types of family businesses, with the purpose of determining

their relevant variables. On the basis of this analysis, we then selected a set of models, identifying the most cited ones and those that had received more attention from researchers, also including models proposed by highly recognized studies on the Spanish context. The models reviewed were the following:

Table 1.

Principal models reviewed (10)

Tagiuri and Davis (1996)	Identifying which factors characterize family businesses	> 1700 citations in Google Scholar (GS)
Amat (2002)	Understanding family business dynamics	> 400 citations in GS (Spanish context)
Gersick et al., (1997)	Creating structures that facilitate the development of family firms within the timelines of each stage	> 2900 citations GS
Ward y Aronoff (1991)	Different priorities of the owners of family businesses	> 100 citations GS
Lane, Astrachan, Keyt and McMillan (2006)	Understanding the complexity of corporate governance	> 200 citations GS
Melin and Nordqvist, 2002	Corporate governance processes and skills for effective strategic management	> 300 citations GS
Perkins (1992)	Understanding the roles that should be performed by family members	Spanish context
Gallo (1997)	Understanding the roles that should be performed by family members	Spanish context
Dyer (1986)	Understanding the roles that should be performed by family members	> 500 citations GS
Gallo and Amat (2003)	Describing the development patterns of family businesses	> 100 citations GS

Source: Authors' compilation.

Each of these models provides a set of dimensions that are useful for depicting and categorizing different types of family businesses, but none of them has been linked to the strategic behavior that could be associated with them.

The most frequently aspect taken into account in these models is the degree to which family members are involved in the firm's governance and management (Tagiuri and Davis, 1996; Gersick et al., 1997; Lane et al., 2006; Melin and Nordqvist, 2000; Perkins, 1992; Gallo, 1997; Dyer, 1986; Gallo and Amat 2003).

Other aspects which have also been frequently considered in the models of analysis studied are the following: the developmental stage, or the generation in charge of the business (Amat, 2002; Gersick et al., 1997), the degree to which the firm's governing bodies are structured (Tagiuri and Davis, 1996), and the firm's size or level of development (Ward and Aronoff, 1991; Melin and Nordqvist, 2000; Perkins, 1992; Gallo, 1997; Gallo and Amat 2003). The first of these aspects concerns the characteristics of the business family, as indeed its influence on firms' strategic behavior is related to the differentiated and entrepreneurial character of the founding generation (Amat, 2002; Gersick et al., 1997), the consolidation challenges usually faced by the second generation (Tagiuri and Davis, 1996), or the potential divergences of opinion regarding business objectives between the different family branches interacting after the third generation (Ward and Aronoff, 1991; Melin and Nordqvist, 2000; Perkins, 1992; Gallo, 1997; Gallo and Amat 2003).

Similarly, the greater or lesser degree to which firms' governing bodies are structured has generated different approaches and frameworks for reflecting on decision-making, which also provide us with a basis for distinguishing between business decisions and family ones (Ward and Aronoff, 1991; Melin and Nordqvist, 2000; Perkins, 1992; Gallo, 1997; Gallo and Amat 2003). However, in addition to the degree of governance structure, it should also be stressed that the extent to which owner families are involved in the governing bodies has an important role to play. This aspect is included, nonetheless, in the first dimension considered above (degree of family involvement). The last of the aspects studied, related to company size or its degree of strategic development, is also a determining factor when it comes to strategic behavior, in that it influences both the organization's capacity and ability to equip itself with the necessary professional support and the level of competence demanded to take appropriate and rational business decisions (Ward and Aronoff, 1991; Melin and Nordqvist, 2000; Perkins, 1992; Gallo, 1997; Gallo and Amat 2003).

In addition to the aforementioned aspects, other factors that are considered here to characterize the types of family firms are, at the family level, the extent to which the governance systems in the family-firm relationship are structured (Tagiuri and Davis, 1996; Gersick et al., 1997; Melin and Nordqvist, 2000; Gallo, 1997; Dyer, 1986; Gallo and Amat, 2003) and, at the ownership level, the number of shareholders (Gersick et al., 1997; Gallo and Amat, 2003). The way in which the owner family decides to govern or manage the relationship between the family and the company will shape the possible relationships between the different spheres of influence (Arbesú, 2016; Arosa and Maseda, 2006; Camisón and Ríos, 2014) and, consequently, the influence it may have on the strategic decisions taken. Likewise, the dispersion or concentration of a company's capital is a key element in how power is distributed and in the greater or lesser importance that consensus or mediation could have in decision-making.

Thus, after reviewing the existing conceptual models and examining the ten most relevant ones (Table 1), we identified a set of frequent or common variables that can be useful for explaining the complexity and heterogeneity of family firms (Figure 1). These variables will then serve to define the three clusters of our research model, subsequently linking them to the firms' repertoire of strategic actions and behaviors, which, to date, have not been explored in more depth.

Table 2

Models studied and their determining variables

MODELS OF ANALYSIS / VARIABLES	FAMILY			FIRM		OWNERSHIP
	Degree of family involvement	Degree of structuration in governing bodies	Effective management control systems used by the family	Generation in charge of the family firm	Number of business operations and firm size	Number of shareholders
1 Three-Circle Model of the Ownership-Family-Firm System developed by Renato Tagiuri and John Davis (1996)	X	X				
2 Five-Circle Extended Model by Joan Amat (2002)				X		
3 Model of Developmental Stages (Gersick et al. 1997; Gallo et al. 2004; Ward and Aronoff, 1991)				X		
4 Three-Dimensional Developmental Model by Gersick et al. (1997)	X	X	X	X	X	X
5 Four-Field Matrix of Family Firm Governance; Market control and dimensions (Lane, Astrachan, Keyt and McMillan, 2006)	X				X	
6 Model of Corporate Governance and Strategic Change (Melin and Nordqvist, 2002)	X	X	X			
7 Matrix Model: Family Size-Firm Size (Perkins 1992)	X				X	
8 Model of Labor Relations (Gallo 1997)	X	X		X	X	
9 Matrix Model: The Role of Families-Professional Management (Dyer 1986)	X		X			
10 Developmental Path Model (Gallo and Amat, 2003)	X	X	X	X	X	X

Source: Authors' compilation.

By means of this identification, we decided on the following variables to be able to determine the types of enterprises found in the landscape of family firms in Spain.

Table 3

Variables used to identify the types of family firms in Spain

FAMILY			FIRM	OWNERSHIP
Degree to which governance is structured regarding the family-firm relationship	Degree of family involvement in governance and management	Developmental stage/generation	Degree of structuration in governance and management bodies	Ownership structure
Experience with family councils/protocols	The owner family is present in the governing bodies	Developmental stage	Existence and size of the board of directors	Independence indicator
Experience with external consultants	Family CEO Percentage of members of the management team from the owner family		The Board includes independent directors	Number of shareholders
Source: Questionnaire	Source: Questionnaire	Source: Questionnaire	Source: Questionnaire	Source: SABI

Source: Authors' calculations.

We decided not to include company size in the set of variables because we consider this aspect as being, primarily, the result of the strategic action we are trying to explain. In addition, the great majority of firms in our sample are small or medium-sized.

3. Types of family firms found in the Spanish context

Based on the relevant variables, we went on to perform a cluster analysis to be able to group together the types of family businesses that are similar to each other and considerably different from other groups.

For this purpose, we created a sample of family firms obtained from a questionnaire whose characteristics are described in Annex 1. The sample included 111 family firms with a minimum of 20 employees so as to rigorously exclude microenterprises and guarantee that at least some kind of organizational structure existed in the firms selected.

The ultimate objective of this analysis is to recognize the diversity of existing realities, in order to link these realities to the different types of strategic behavior in family enterprises. Therefore,

when it comes to identifying the different types of family firms, this should not be based on their results or strategic behavior (the subject of the second part of the analysis), but rather on factors related to the ownership and company's characteristics (governance and management), as well as to what role the family has to play in these areas of governance or management.

Table 4

Sample characteristics

		Total		Founder-centric firms		Structured firms		Evolved firms	
		No.	%	No.	%	No.	%	No.	%
Size of the board of directors	Total	114	100%	47	100%	47	100%	20	100%
	No Board of directors	55	48.20%	45	95.70%	10	21.30%	0	0%
	Small Board of directors	32	28.10%	0	0%	26	55.30%	6	30.00%
	Large Board of directors	27	23.70%	2	4.30%	11	23.40%	14	70.00%
Percentage of family members on the Board of directors	Total	114	100%	47	100%	47	100%	20	100%
	Minority	12	10.50%	0	0%	2	4.30%	10	50.00%
	Majority	14	12.30%	0	0%	4	8.50%	10	50.00%
	Single Majority	88	77.20%	47	100%	41	87.20%	0	0%
Degree to which independent directors participate	Total	114	100%	47	100%	47	100%	20	100%
	No independent directors	107	93.90%	47	100%	47	100%	13	65.00%
	Incl. independent directors	7	6.10%	0	0%	0	0%	7	35.00%
Is the Board chairperson also the general manager? Yes/No	Total	114	100%	47	100%	47	100%	20	100%
	No	29	25.40%	0	0	16	34.00%	13	65.00%
	Yes	85	74.60%	47	100%	31	66.00%	7	35.00%

Years of accumulated experience with external consultants	Total	114	100%	47	100%	47	100%	20	100%
	No experience of external consultants' participation	87	76.30%	42	89.40%	30	63.80%	15	75.00%
	Recent experiences	13	11.40%	0	0%	12	25.50%	1	5.00%
	Vast experience	14	12.30%	5	10.80%	5	10.60%	4	20.00%
Years of accumulated experience in family councils	Total	114	100%	47	100%	47	100%	20	100%
	No experience	94	82.50%	46	97.90%	34	72.30%	14	70.00%
	New family councils	8	7.00%	1	2.10%	6	12.80%	1	5.00%
	Strong family councils	12	10.50%	0	0%	7	14.90%	5	25.00%
Percentage of top management members belonging to the owner family	Total	114	100%	47	100%	47	100%	20	100%
	<=20	46	40.40%	19	40.40%	13	27.70%	14	70.00%
	21-50	30	26.30%	14	29.80%	11	23.40%	5	25.00%
	51-80	9	7.90%	1	2.10%	7	14.90%	1	5.00%
	>80	29	25.40%	13	27.70%	16	34.00%	0	0.00%
In-laws involvement	Total	114	100%	47	100%	47	100%	20	100%
	No	84	73.70%	31	66.00%	36	76.60%	17	85.00%
	Yes	30	26.30%	16	34.00%	11	23.40%	3	15.00%
Number of shareholders	Valid No.	114		47		47		20	
	Mean	2.75		1.68		3.09		4.5	
	Median	2		2		3		2	
	Standard dev.	3.55		0.89		2.06		7.5	
	Valid No.	1.14		47		47		20	

Indicator of independence (SABI)	Mean	1.67	1.21	2.21	1.45
	Median	1	1	3	1
	Standard dev.	1.26	0.88	1.44	1.1
Founding stage	Valid No.	114	47	47	20
	Mean	1.8	1.65	1.9	1.9
	Median	2	1.5	2	2
	Standard dev.	0.78	0.9	0.56	0.91

Source: Authors' calculations.

In order to discern distinct and homogeneous groups of behavior, cluster analysis is an appropriate technique for finding these natural groupings in a data set, structuring the data into homogeneous groups to identify the different types of behavior. By applying this technique¹, we were able to form, with a good level of significance, three groups of family firms that shared similar characteristics and were sufficiently differentiated from those belonging to the other groups studied. Here, we call these firms *founder-centric*, *structured*, and *evolved*:

- *Cluster 1* (41.3%) includes the *founder-centric firms*. This group refers to "low complexity" companies that have not equipped themselves with the necessary means to govern their firm. In these firms, governance revolves around a center (usually the founder/CEO) where the three dimensions overlap: ownership, family, and firm (table 5).

Ownership is also highly concentrated in this type of company (1.68 shareholders implies that in most cases, there is only one shareholder, which is usually the founder). The rest of the family may be present to some extent in terms of capital, or in the management, but it is more in a symbolical way rather than involving any real power (table 6).

- *Cluster 2* (41.3%) is made up of *structured firms*. These companies fall into the category of "medium complexity" and have developed some formal procedures with which to govern their firm.

¹ Cluster analysis is a technique that allows us to find natural groupings in a data set and identify groups (or clusters), from which we can then obtain groupings or homogeneous typologies within each group that are significantly different from those belonging to other groups.

Table 5

Cluster 1. Founder-centric firms

FAMILY			FIRM	OWNERSHIP
Degree to which governance is structured regarding the family-firm relationship	Degree of family involvement in governance and management	Developmental stage/generation	Degree of structuration in governance and management bodies	Ownership structure
% of members of the management team who are from the owner family, polarized between <20% and >80%	No experience with family councils	1.65 Founding stage (founder and children)	No Board No independent directors on the Board Chairperson of the Board is the CEO No experience with external consultants	Sole presence of an owner family 1.68 shareholders

Source: Authors' compilation.

Table 6

Cluster 2. Structured firms

FAMILY			FIRM	OWNERSHIP
Degree to which governance is structured regarding the family-firm relationship	Degree of family involvement in governance and management	Developmental stage/generation	Degree of structuration in governance and management bodies	Ownership structure
(+)50% of the members of the management team are from the owner family	Some experience with family councils	1.9 Founding stage (children of the founder generation)	Small Board No independent directors on the Board Chairperson of the Board is the CEO Recent experience with external consultants	Sole presence of the owner family 3.09 shareholders

Source: Authors' compilation.

In family firms following the structured model, we can see the beginnings of an evolution in the governance of the company, in that they do have a board (which is small in 55.5% of the cases and larger in 23.4% of the firms studied), although it is still controlled by the CEO and does not include independent directors. The number of shareholders stands at 3.09 on average, indicating that the next generations have entered ownership, which leads to a wider range of perspectives and preferences. This diversity has implications for management and family governance, where a high level of family involvement in management can be seen, as well as varied experiences regarding the introduction of measures such as family protocols or family councils.

- *Cluster 3* (17.4%) consists of the *evolved firms*, corresponding to "high complexity" companies which have developed more advanced strategies to govern their companies (table 7).

In the evolved firms, there is a clear focus on structuring and professionalizing the board of directors (all the companies have one, and in 70% of the cases, it is a fairly large one). Moreover, in 50% of these companies, family board members are in the minority, which denotes a certain openness and participation of other actors (minority shareholders) or of employees (managers), where 35% of these firms have independent board directors who provide them with a higher level of professionalism and objectivity.

Table 7

Cluster 3. Evolved firms

FAMILY			FIRM	OWNERSHIP
Degree to which governance is structured in the family-firm relationship	Degree of family involvement in governance and management	Developmental stage/generation	Degree of structuration in governance and management bodies	Ownership structure
(-)20% of the members of the management team are from the owner family	Strong family councils	1.9 Founding stage (children of the founder generation)	Large Board The Board includes independent directors Chairperson of the Board is not the CEO Vast experience with external consultants	Mixed presence of the owner family 4.5 shareholders

Source: Authors' compilation.

Although the developmental stage is similar to that of structured firms, in this group, there is a larger dispersion of capital (with the average number of shareholders being higher), the degree to which the family-firm relationship is governed is greater, and the management team does not include as many family members. In fact, the role adopted by these families is more about controlling the company, as opposed to taking an active role in management.

The three groups identified demonstrate quite evidently that heterogeneity does exist among family firms. Nonetheless, through the configurations observed, we can also establish how their dimensions tend to merge and define the companies in such a way that it is possible to explore the relationship between their characteristics and their behavior or results. From this analysis, the following key aspects can be highlighted:

- A significant group of companies are structured around the figure of the founder or a main actor (generally a family member), who has an overriding influence on decision-making, and the company's evolution will depend on his/her personal characteristics and preferences.
- On average, structured and evolved firms are at similar developmental stages, which seems to indicate that how evolved the entrepreneurial perspective is may well be more related to attitudes and orientations rather than following a more sequential or evolutionary path. In other words, it is not necessary to go through a structured stage to reach an evolved one.
- The degree to which the configuration adopted has evolved is closely tied to the structuring of the governance systems, both of the company and of the family-firm relationship.
- The experiences with external consultants allow us to conclude that these actors can play a role in activating change. In the firms following the structured model, 25.5% have had recent experiences with external consultants, while in evolved companies, 20% had a consolidated experience in this regard. The use of external professionals as a means to accelerate the structuring and evolution processes of the governing bodies and the professionalization of the family firm can therefore be viewed as being positive.
- Not all family businesses have a family council. In firms with a founder-centric model, the founder takes on this role (97.9%), which is found to be the case in 72.3% of the structured firms and even in the evolved ones, 25% of them do not have a family board.
- The percentage of family owners who are part of the management team is lower in firms following the evolved model, it being less than 20% in 70% of these companies and less than 50% in another 25%; in other words, 95% of the evolved firms have a management team with a majority of non-family owners.
- Moreover, in evolved companies, more women are promoted into CEO positions, and the number of university graduates is also found to be higher. In addition, the percentage of CEOs who are members of the owner family is lower in that model, and the average age of the management team is younger.

4. Differences in the strategic behaviors of the types of family firms

The question that follows after identifying the various types of governance configurations in family firms, is what the strategic implications of the observed differences are. In other words, does this classification serve to explain the differences in family business behaviors?

To answer this question, we analyzed a repertoire of 19 strategic behaviors or actions displayed by companies in two distinct periods: the period corresponding to the hardest years of the 2008-2013 financial crisis, and the subsequent period of economic recovery (between 2014 and 2016, given that data was collected during 2017).

Table 8

Repertoire of strategic actions considered

A. Actions related to geographical markets	B. Actions related to competitive products	C. Actions related to market segmentation strategies and distribution channels	D. Arguments used by the firm to compete with other companies	E. Modes of strategic development
In each period	P 1 (2008-2013) / P 2 (2014-2016)	P 1 (2008-2013) / P 2 (2014-2016)	P 1 (2008-2013) / P 2 (2014-2016)	P 1 (2008-2013) / P 2 (2014-2016)
A.1. Consolidating its position in the markets it operates in.	B.1. Improvement of the firm's products/services.	C.1. Greater focus on specific market segments.	D.1. Reduce costs to be more competitive and to set lower prices than competitors.	E.1. Mergers and acquisitions of other companies.
A.2. Withdrawal from some of the markets it was operating in.	B.2. Development and launching of new products/services into current markets.	C.2. Opening up to new market segments not considered before.	D.2. Products or services with higher quality than competitors (high value added products/services and technological advantage).	E.2. Sales/settlements of assets, division of the company.
A.3. Entering new markets.	B.3. Development and launching of new products/services into new markets.	C.2. Using new distribution channels.	D.3. Provide customers with better services than competitors (better support, faster, more efficient and flexible services, customized services).	E.3. Strategic alliances with other firms (joint ventures, partnerships...)
	B.4. Elimination of or disinvestment in products/services currently offered.	C.3. Withdrawal from market segments or reduction of distribution channels currently used.		E.4. Externalization of low value-added activities (outsourcing, subcontracting, offshoring...)
				E.5. Investment in new assets & resources (facilities, equipment and machinery, new recruitments, R&D&I programs...)

Source: Authors' compilation.

Table 9

Factor analysis. Categorization of the strategic options identified in the 2008-2013 period

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Entering new markets	0.616				
Opening up new market segments	0.644				
Using new distribution channels	0.728				
Developing new products/services and launching them into current markets	0.768				
Developing new products/services and launching them into new markets	0.79				
Withdrawal from markets		0.73			
Disinvestment in products/services		0.742			
Reduction of distribution channels		0.792			
Sale of assets			-0.615		
Improving products/services			0.538		
Focusing on specific market segments			0.566		
Consolidating market positions			0.704		
Strategic alliances				0.626	
Outsourcing				0.798	
M&As					0.742
Investing in new assets & resources					0.522
Variance explained by the factors (with eigenvalues < 1)			61.37%		
KMO test			0.710		
Bartlett's test for sphericity			Chi ² = 478.755 sig. 0.000		

Source: Authors' calculations.

To be able to work with these nineteen strategic options in a meaningful way, we categorized them into factor groups using factor analysis. This yielded five factors for the first period analyzed (2008-2013) and four for the second one (2014-2016).

For the first period, we observed a variety of strategic behaviors exhibited by family businesses, which were grouped into the following factors:

- **FACTOR 1: EXPANSION.** This factor includes strategies for entering new markets and distribution channels, the creation of new market segments, and developing and launching new products and services both in current and new markets.
- **FACTOR 2: RETRENCHMENT.** This factor incorporates strategies such as the firm's withdrawal from certain markets, disinvestment in some of the products and services it offers, and plans to reduce the number of distribution channels used.
- **FACTOR 3: CONSOLIDATION.** This strategic option includes the sale of assets, improving products and services as a defensive strategy, as well as focusing on specific market segments in which the firm is better positioned, and consolidating the market where it is stronger.
- **FACTOR 4: INTER-ORGANIZATIONAL COLLABORATION.** This component brings together the strategic options that refer to entering into strategic alliances and outsourcing agreements for activities carried out within the company up until then.
- **FACTOR 5: CORPORATE GROWTH AND DEVELOPMENT.** This factor dimension involves strategies that lead to the merger or acquisition of companies, as well as to investing in new resources.

In the second period, however, the strategic behavior of family businesses could be categorized into only four differentiated behaviors, which correspond to the following factors:

- **FACTOR 1: THE INCREMENTAL FACTOR.** This strategic option comprises business plans to consolidate the company's current markets, enhance its products and services, and develop and launch new products and services in existing and emerging markets. Strategies within this option also include concentrating on certain market segments, creating new niches in the market, in addition to investing in new resources.
- **FACTOR 2: RETRENCHMENT.** This factor involves withdrawing from certain markets, disinvesting in less profitable products and services, and reducing the number of distribution channels.
- **FACTOR 3: CORPORATE TRANSACTIONS.** This component gathers actions related to companies' mergers or acquisitions, sale of assets, strategic alliances, and the outsourcing of activities.
- **FACTOR 4: EXPANSION INTO NEW MARKETS.** This factor dimension clearly focuses on expanding the business to new markets.

An interesting point of our analysis is that the strategies used by family businesses vary depending on the characteristics of the period analyzed. The analysis of the crisis period (2008-2013) revealed several nuances in the strategic repertoire used, which is more diverse than the set of strategies identified in the growth period. In periods of crisis, expansion efforts can be more clearly distinguished from consolidation strategies, while in growth periods, these aspects are combined in an incremental approach. Nevertheless, the set of factors making up the repertoire is remarkably similar and consistent between the two periods.

Table 10

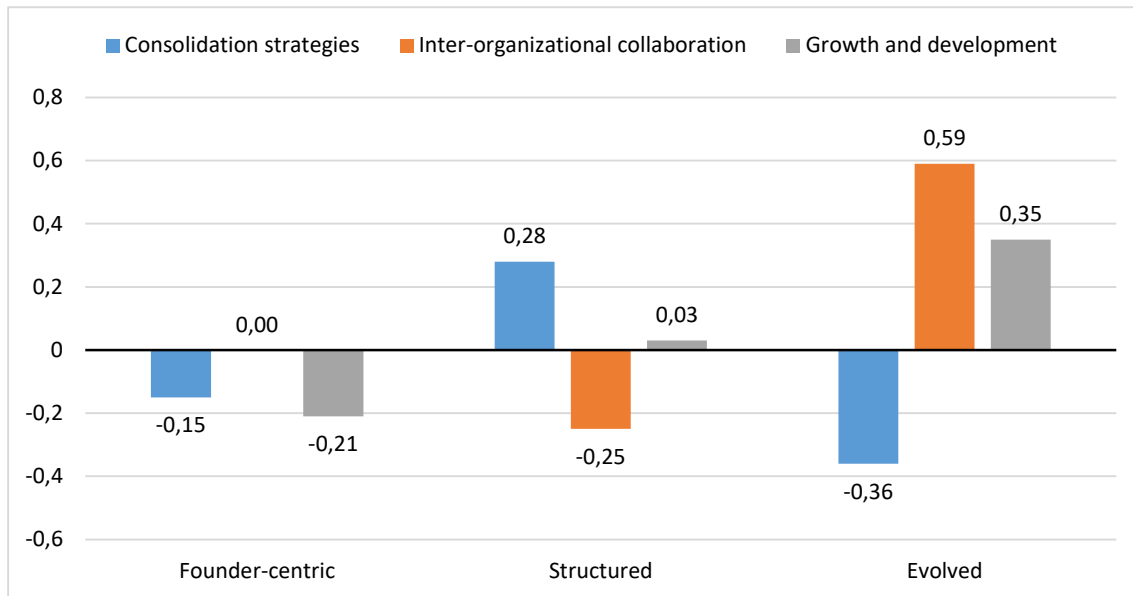
Factor analysis. Categorization of the strategic options identified in the 2014-2016 period

	Factor 1	Factor 2	Factor 3	Factor 4
Consolidating market positions	0.794			
Improving products/services	0.739			
Developing new products/services and launching them into current markets	0.651			
Developing new products/services and launching them into new markets	0.542			
Focusing on specific market segments	0.59			
Opening up new market segments	0.535			
Investing in new assets & resources	0.577			
Withdrawal from markets		0.74		
Disinvestment in products/services		0.813		
Reduction of distribution channels		0.858		
M&As			0.727	
Sale of assets			0.51	
Strategic alliances			0.789	
Outsourcing			0.592	
Entering new markets				0.847
Variance explained by the factors (with eigenvalues < 1)		55.45%		
KMO test		0.725		
Bartlett's test for sphericity		Chi ² = 493.924		
		sig. 0.000		

Source: Authors' calculations.

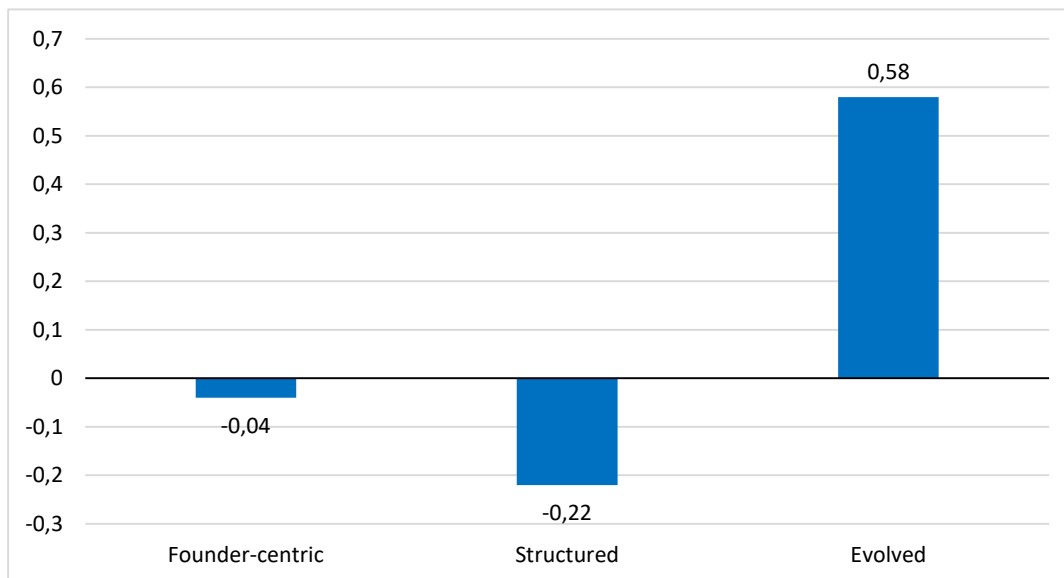
Yet, regarding the differences in the strategic behaviors observed among the three different types of family firms (founder-centric, structured, and evolved), our factor analysis of the strategic repertoire shows some noteworthy differences, as can be seen in Figures 1 and 2.

Figure 1

Factors by type of firm. 2008-2013 period

Source: Authors' calculations.

Figure 2

Corporate transactions by type of company

Source: Authors' calculations.

In times of crisis, structured companies choose to develop consolidation strategies, i.e., they adopt more conservative and position-oriented approaches. In contrast, more evolved companies typically explore the strategic possibilities of inter-organizational arrangements and corporate growth as a means of coping with these complex periods.

Some differences in behavior can also be observed in the growth period, in which evolved companies, as compared to other types of companies, are more likely to enter into corporate transactions as a formula for growth. Evolved companies also tend to follow inorganic growth strategies (M&As). They generally, too, have a greater capacity and more resources, and the structure of their capital and governance bodies seems to be oriented towards more ambitious and faster growth targets.

5. Discussion and conclusions

This research aims to reveal the nuances which can be found in the different profiles of family firms, providing a practical overview of corporate heterogeneity. Our results bring to light three types of family businesses according to the composition of the family characteristics (degree of family involvement, developmental stage, and the degree to which governing bodies are structured regarding the family-business relationship), the firm's characteristics (structure of its governing bodies), and the ownership characteristics (degree of concentration of capital and variety of perspectives).

We characterized these three groups and called them *founder-centric firms*, *structured firms*, and *evolved firms*. We also analyzed the relationship between the type of family firm and the strategic behaviors adopted by these companies in different time frames.

The classification made here contributes to expanding and refining the conceptual models put forward by other studies in the literature. This study has shown that even the most advanced conceptual models, such as Gersick's (1997) model of the three family-business developmental stages, have their limitations when it comes to capturing their actual heterogeneity. In fact, the last two stages of this model (sibling partnership and cousin consortium) do not efficiently capture the nuances which we have been able to observe in our classification of family firms, and which can be better seized when the different models of structured and evolved companies are characterized. By means of this analysis and the resulting classification, a more detailed description is provided on the large number of dimensions (and even attitudes) that interact in the definition of the business models.

In this sense, the patterns identified are better at capturing the complexity of corporate governing bodies and families as well as the nuances regarding their consideration of external support. It should also be noted that these patterns need not to be sequential, especially once the founder's stage has been overcome.

Thus, among the conceptual models proposed, Gallo's (2003) development path model is perhaps the closest to our results since, in his model, the three paths of development or stages (founder,

fast development, and balanced development) are not described as a clear sequence of evolution either. However, our study shows that growth strategies, such as the diversification of products, business agreements, or markets, are not elements by which models or types of companies can be differentiated and, therefore, we consider that they can be problematic as classification criteria.

On the other hand, in addition to determining the different configurations with which to characterize the heterogeneity of family businesses, we studied the ways in which this heterogeneity could influence the strategic behaviors of firms.

To analyze the extensive repertoire of strategies used by family businesses, we considered nineteen strategic options that were categorized into groups using factor analysis. The first relevant finding of our analysis is that the repertoire's strategic behaviors cannot be grouped together in exactly the same way in the two periods, which opens up an opportunity for further research on the repertoire's adaptation to the environmental conditions. Second, we found some significant differences in the strategic behaviors of companies corresponding to the various typologies. Moreover, through the results of the factor analysis, we have been able to discern the complexity of the patterns in the strategic repertoire of family businesses, which exceeds the simplified conceptual models developed so far in the literature.

Indeed, both Gersick's (1997) three-dimensional developmental model and Gallo's (2003) developmental path model, despite being the most evolved ones, do not reflect the actual variety of strategies used by the different types of family businesses which have been identified in this field work.

Our results show that the more complex a company is, the more sophisticated are the strategies it develops. Thus, in periods of crisis, structured firms are more inclined to use strengthening strategies, whereas evolved firms are more likely to explore strategic options related to organizational arrangements and corporate growth. Likewise, the latter are more proactive in their use of corporate transactions as a formula for growth in the post-crisis period.

In evolved family firms, family members are not usually responsible for the company's effective management, but rather they play a more control-oriented role. If we take a look at today's market competition trends, we can observe that in recent years, there is an evolution towards processes of diversification and a search for new business models in the form of family investment companies, where family members, for the sake of growth and diversification, make new investments in other business activities that are not always 100% family (i.e., with external partners). Family members with these profiles are more likely to sell their shares or holdings, go into business with third parties, etc.

Today, more and more companies are considering the adoption of inorganic growth strategies (through M&A), and hence, investment activities, such as the acquisition of shares, are augmenting, and it is quite common for firms to invest in funds and also to own investment companies and corporate industrial holdings. Furthermore, with competitive dynamics clearly affecting the markets, we have seen traditional business models evolving at an increasingly faster rate in recent years. Consequently, ownership models and business cycles are, generally speaking, also evolving, and this is particularly true for family firms.

6. Limitations and future research questions

This study, like any other research work, is not without limitations. The first one is the relatively small sample size (111 family businesses), and evidently, a larger and more representative sample would have better validated the classification obtained through the analysis. Thus, we encourage replicating this effort with different and more comprehensive samples in order to extend the knowledge about the heterogeneity of family firms and its implications.

Second, future research could look at many other aspects that may contribute to better understanding the implications of the different configurations observed: founder-centric, structured, and evolved firms. More specifically, we should pose the question as to what aspects, attitudes, or conditions determine the way a firm develops as it is handed on to the second or subsequent generations.

According to data from a recent study by the Instituto de Empresa Familiar (2018), *Factores de competitividad en la Empresa Familiar* ('Competitiveness Factors in Family Businesses'), family protocols were only used by 11.3% of the companies, while 74.3% did not consider them even necessary. It also drew attention to the loose structure of corporate governance bodies (61.2% of the companies had a sole manager, whereas only 35% of the firms had a board of directors) and of family governance bodies (barely 11.3% had a family council). Thus, how can the structuration of governance bodies (family or corporate) be encouraged in contexts where family businesses start out with such a loose governance structure? Currently, the potential for improving the structure of governing bodies in family businesses is great and represents a huge professional challenge.

For all the above reasons and bearing in mind the low degree to which governing bodies of family businesses are structured today, we believe there is considerable potential for improvement in this aspect, and therefore, an interesting challenge for future research would be to characterize further the three family business typologies and their evolutionary paths.

7. Acknowledgements

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Annex 1: Research technical data sheet

Our sample frame is limited to small and medium-sized family businesses. We took into consideration, however, a minimum size of 20 employees to guarantee an adequate framework for the effect analysis of the factors that encourage, limit, or facilitate the existence of certain governing bodies and a minimum of complexity in the companies' strategic repertoires (Sánchez and Escribá-Esteve, 2010). This sample size requirement was established for the year 2008 (at the beginning of the financial crisis) and was maintained up to 2016 (the end of the crisis).

The sample was selected from the SABI Database (Bureau Van Dijk and Dun and Bradstreet Informa), and questionnaires were sent out to the chosen companies, from April to September 2017, following Dillman's (2000) survey method.

We started with a random selection of 2,000 companies, of which 1,484 were family firms (74.23%), and 516 non-family ones (25.77%). We eliminated 89 companies from the sample since they never received the questionnaire, and thus, the total sample was 1,911 companies, i.e., those who did receive the questionnaires. The sector to which these businesses belonged was chosen at random. Moreover, the random sample was made up of firms with between 20 and 250 employees, so that they were within the range of SMEs, i.e., between small enterprises (with more than 10 employees) and what are considered as medium-sized enterprises (with less than 250 employees).

In the first mailing, 37 questionnaires (1.9%) were answered, while in the second one, 113 firms (5.9%) responded. Of these, 36 companies did not meet the requirements for being a family business and thus had to be removed. Also, 3 questionnaires with incomplete information were discarded. As a result, a total number of 111 answered questionnaires (5.19%) were validated. In this respect, Hambrick et al. (1993) pointed out that the typical response rate for questionnaires sent to senior executives by mail in the United States is between 10% and 12%. Our response rate was 5.9%, somewhat lower than the percentage indicated by these authors, although normally, it could be considered as a valid sample with respect to other studies of similar characteristics, as we may conclude from Nielsen's (2010) study². Regarding the sectoral distribution of the companies of our sample, 14% were from the primary sector, 53% from the secondary sector, and 33% belonged the tertiary sector.³

We also checked whether there were any biases in the companies that answered, comparing their characteristics with those that did not respond, but the statistical comparison did not show any significant differences as regard to their size, structure of the governing bodies or sector. Likewise, to avoid any biases in the sample, a t-test was used to compare the firms that had answered the

² Nielsen (2010) concludes that out of 60 articles reviewed over a period of 22 years (1984-2005), the sample used for quantitative studies with objectives similar to ours (Top Management Team characteristics and strategy), ranged from 27 to 402 companies.

³ By way of reference, in 2010, the primary sector's contribution to the Valencian Community's GDP was 2.3%, the secondary sector's was 26.6%, and the tertiary sector's stood at 71.1%, according to the Valencia Chamber of Commerce, Industry and Navigation. In this regard, the figures obtained for our sample are dissimilar from those of the GDP distribution, which could be due to the fact that the participating companies are better matched to the criteria established in our study frame.

questionnaires quickly and those that only responded when the questionnaire was sent to them a second time, and no significant differences were found as to the general descriptive characteristics.

The questionnaire included three basic parts. The first one consisted of questions mainly related to the company's corporate and competitive strategies in the two distinct periods, 2008-2013 and 2014-2016. For this we asked them to rate the degree of relevance for each strategic action in each period using a score of 1 for, "not relevant at all", to 5, for "key action" regarding their company during that period (Hambrick et al., 1993; Sánchez and Escribá-Esteve, 2010). We then asked them to select three of the strategic changes introduced that they considered to be the most significant, indicating how many years they had spent implementing them and stating approximately from which year to which year this implementation took place.

The second part referred to questions about the company's ownership and governing bodies.

The third part (section 7 and following ones) contained questions related to the management team. In this section, as proposed by Sánchez and Escribá-Esteve (2010) citing Papadakis and Barwise (2002), a definition of *management team*⁴ is provided. Boeker (1997) also defined the top management team as the individuals who report directly to the CEO of the company.

Figure 3

Questionnaire design

Parts	Questionnaire design		
First	Strategic actions	Period 1: 2008-2013	Period 2: 2014-2016
	Speed of change	Implementation time frame (years)	First and final year
Second	Family firm <i>versus</i> non-family firm		
Third	Management teams	In 2008	From 2009

Source: Authors' compilation.

The limitations of research based on a survey are well known (Hambrick et al., 1993), and for this reason we tried to reduce these limitations by following certain steps, such as those described above, in order to improve the reliability of the responses.

⁴ Where the management team consists of the General Manager and those who report to her or him and participate in key decisions affecting the company.

Figure 4

Questionnaire

Questions regarding family governance mechanisms	
Is it a majority family-owned company?	Yes ____ No ____
What family generations are currently holding top management positions? Founder Second generation Third generation Fourth generation In-laws (spouses, brother/sister-in law) of: Founder Second generation Third generation Fourth generation	
Does your company have a family council?	Yes ____ No ____
If yes: Since when (year)?	
Does any external family business consultant participate in the council?	Yes ____ No ____
Does your company have a family protocol?	Yes ____ No ____
If yes: Since when (year)?	

Questions regarding firm governance mechanisms	
Does your company have a board of directors?	Yes ____ No ____
If yes: How many members did the board of directors have in 2008	And in 2016?
Is the Board's chairperson also the general manager?	Yes ____ No ____
Please state the approximate number of Board meetings which take place each year One Two Less than six More than six	
Please state the number of board members holding one of the following positions in both years: 2008 2016	
Number of shareholders which are also members of the owner family (if applicable)	
Number of non-shareholder family members (if applicable)	

Number of (non-family) shareholders or their representatives

Number of top managers/executives

Number of external consultants/independent directors (state below their profile)

Law/Finance experts	Family business/governance experts	Market/Industry experts	Others
---------------------	------------------------------------	-------------------------	--------

Questions regarding external support

Does your company have an official and permanent advisory board in which external consultants participate?

Yes ____ No ____

If yes, since when (year)?

Variables considered for the analysis of the CEO and management team within the cluster typologies:

How many people (including the general manager) made up the management team of your company in 2008?

And at the end of 2016?

As well as the characteristics of the management team, both CEO and top management team.

Gender

Age in 2016

Questions regarding your personal development in the management team:

Approx. year in which you entered the management team

Approx. year in which you changed your management position or left the management team.

Questions regarding area of responsibility

Governance/Management

Production/Operations

Sales/Marketing

Human Resources/Staff

Finance/Accounting

R&D/Product Engineering

Other

Questions regarding qualifications

Non-university education

University degree

If you do hold a university degree, please state subject:

1. Business Management/Economics

4. Engineering/Technical degree

2. Health

5. Others

3. Social Sciences, Law or similar

Questions regarding family firm's characteristics

1. Owner

Yes ____

No ____

2. Member of the owner family

Yes ____

No ____

3. Previous management experience at another company

Yes ____

No ____

4. Key person in strategic decisions

Yes ____

No ____

Have there been any new recruitments in the management team since 2009?

Yes ____
(answer next question)No ____
(end of the questionnaire)

Please characterize any new management team members since 2009 (using the same variables as above).

Variables considered in the analysis of the strategic behavior of the clusters of types of family firms over the last 10 years

Here, we were interested in finding out which strategic actions were carried out by companies to face the challenges and environmental conditions in each of the two periods:

- Period 1. During the international financial crisis (2008 to 2013).
- Period 2. The most recent period (2014 to 2016).

Table 11

Repertoire of strategic actions considered

A. Actions related to geographical markets	B. Actions related to competitive products	C. Actions related to market segmentation strategies and distribution channels	D. Arguments used by the firm to compete with other companies	E. Modes of strategic development
In each period	P 1 (2008-2013) / P 2 (2014-2016)	P 1 (2008-2013) / P 2 (2014-2016)	P 1 (2008-2013) / P 2 (2014-2016)	P 1 (2008-2013) / P 2 (2014-2016)
				E.1. Mergers and acquisitions of other companies.
	B.1. Improvement of the firm's products/services.	C.1. Greater focus on specific market segments.	D.1. Reduce costs to be more competitive and to set lower prices than competitors.	E.2. Sales/settlements of assets, division of the company.
A.1. Consolidating its position in the markets it operates in.	B.2. Development and launching of new products/services into current markets.	C.2. Opening up to new market segments not considered before.	D.2. Products or services with higher quality than competitors (high value added products/services and technological advantage).	E.3. Strategic alliances with other firms (joint ventures, partnerships...)
A.2. Withdrawal from some of the markets it was operating in.	B.3. Development and launching of new products/services into new markets.	C.2. Using new distribution channels.	D.3. Provide customers with better services than competitors (better support, faster, more efficient and flexible services, customized services).	E.4. Externalization of low value-added activities (outsourcing, subcontracting, offshoring...)
A.3. Entering new markets.	B.4. Elimination of or disinvestment in products/services currently offered.	C3. Withdrawal from market segments or reduction of distribution channels currently used.		E.5. Investment in new assets & resources (facilities, equipment and machinery, new recruitments, R&D&I programs...)

Source: Authors' compilation.

We assessed the degree of relevance given to the strategic actions carried out in both periods using a scale of 1 to 5, where 1 meant that the action was NOT RELEVANT AT ALL for the company's strategy in the period indicated; 2 meant it was SLIGHTLY relevant; 3, MODERATELY relevant; 4, VERY relevant; and 5 meant it was a KEY action in the company's strategy.

African Immigrant Entrepreneurship in the UK: The Hidden Hand of Family Influence on Entrepreneurial Orientation

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Abstract

The importance of ethnic minority businesses (EMBs) has been lauded in the entrepreneurship discourse. Building on entrepreneurial orientation theory, this study seeks to understand family influence on the entrepreneurial processes, practices, and decision-making activities in a relatively under-explored social group. The methodological approach in this study involved in-

depth interviews with 10 entrepreneurs based in the United Kingdom. This study found strong social identity congruence behaviour of explored entrepreneurs from the point of how their entrepreneurial orientation is family-influence driven. For the entrepreneurs, the family is a central behaviour factor that exerts significantly on their entrepreneurial processes and decision making. As a result, actual judgement and decision making of entrepreneurs may not necessarily be driven by economic logic but largely by family control factors that even exert more significantly on entrepreneurial behaviour. This study contributes to the psychological and family control perspectives on entrepreneurship discourse. This study has two core limitations: it is based on the qualitative approach and explores only one social group. Future research in the form of quantitative studies that also examine other cultural enclaves would therefore help to enhance the causes and effects conclusions suggested in this study.

Key words

Ethnic Minority Businesses; Entrepreneurial Orientation; Family Influence; Social and Human Capital; Entrepreneurial Decision Making; Social Identity Congruence

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1. Introduction

Entrepreneurship literature has lauded the significant economic growth contribution of ethnic minority businesses (henceforth EMBs) (e.g. Ram & Jones, 2008; Hajro, Zikic, & Caprar, 2018). It is documented that migrant businesses contribute to inclusive and sustainable economic growth both in home and host communities (e.g. Hajro *et al.*, 2018) and global migrants fill critical labour shortages, as well as create jobs as entrepreneurs (e.g. Hajro *et al.*, 2018). The economic importance of migrants is further underlined by OECD (2016): they leverage their skills and competences to accelerate technological and human capital development of receiving nations. Understandably, policy makers are intensifying initiatives directed at EMBs (Ram & Jones, 2008; Nwankwo, Madichie, & Ekwulugo, 2011). Equally, EMBs discourse has not only intensified, but the need for further attention to be accorded to this form of entrepreneurship activity remains pronounced (e.g. Hagos, Izak, & Scott, 2019; Ram, Jones, & Villares-Varela, 2017; Opute *et al.*, 2020; Nwankwo, Akunuri, & Madichie, 2010). Indeed, this study builds on and extends the theoretical notion in Opute *et al.* (2020). Opute *et al.* (2020) document that a reasonable number of participating entrepreneurs exhibited core features that connect to family business literature, a conclusion that understandably lacked elaboration, as that was beyond the scope of that research. Towards enhancing the understanding of family business, an entrepreneurship domain that has gained increasing attention over the last two decades given the accumulating body of

knowledge on the distinctiveness and behaviour of family enterprises and the impact of such behaviours (e.g. De Massis & Foss, 2018; Neckebrouck, Schulze, & Zellweger, 2018; Ratten *et al.*, 2017), Opute *et al.* (2020) draw attention to the research gap in this domain. In response, this current study explores ethnic minority business, with a focus to illuminating family influence features in their entrepreneurial orientation, a critical research space, given that family differences shape entrepreneurial orientation and goals (Combs *et al.*, 2017; Danes, 2014). To achieve the above-stated focus, this study, which embraces the meso-level connotation of family that involves families not just by blood but also through emotional and social connections (Hillebrand, 2019), takes a psychological perspective.

The importance of taking a psychological perspective in understanding entrepreneurial dynamics has been reiterated in the literature (e.g. Opute *et al.*, 2020; Jiang *et al.*, 2018; De Massis & Foss, 2018; Gagné, Sharma, & De Massis, 2014). In a 2019 Special Issue Call for Papers for Family Business Review, the Guest Editors (De Massis, Piccolo, Picone & Tang) underscored this pertinence, and emphasise that family business scholars should invoke psychological foundations in extending and enriching the current predictions about family related entrepreneurial behaviour. Inspired by the aforementioned theoretical notion and research advocacy in Opute *et al.* (2020), as well as the Journal of Family Business Management Special Issue Call (2019), this current study seeks to enhance the understanding of family role in entrepreneurial orientation. This study aims to contribute to the understanding of how family influence conditions the entrepreneurial processes of ethnic minority businesses. A key road-path to boosting the understanding of family businesses is to illuminate the characteristics of actual judgement and decision processes within the firm (De Bondt & Thaler, 1995).

Within the aforementioned contribution aim, this study seeks to understand how family harmony (e.g. Gagné *et al.*, 2014; Holt *et al.*, 2017) feeds into the entrepreneurial processes in ethnic minority businesses (and specifically African immigrant businesses), and addresses three major questions: What is the nature of family influence on the entrepreneurship start-up?, what role does family influence play in the forms and extent of capital that explored entrepreneurs utilise?, and what is the impact of family influence on the performance of explored entrepreneurs?.

Next, this paper is progressed thus: First, the theoretical framing of this study is presented, explaining family business and ethnic minority businesses and highlighting literature on how the forms of capital are sourced. In line with the psychological focus of this study, literature is also reviewed on culture and entrepreneurship. Following that, the methodological approach is explained. Thereafter, findings are presented and discussed. To conclude, the implications of the study are underlined, and future research directions flagged.

2. Theoretical framework

Focused on understanding entrepreneurial orientation, the theoretical framing of this paper is interwoven between the family business and ethnic minority businesses. This theoretical framing is grounded on the rationality that though fitting the categorisation as family businesses, this

study specifically takes the perspective of understanding the family features in the entrepreneurial orientation of ethnic minority businesses. Next, literature is reviewed on family business, ethnic minority businesses, and culture and entrepreneurship. In the theoretical framing of this research, we recognise that additional to financial capital (e.g. Opute *et al.*, 2020; Iwu & Opute, 2019), non-financial resources (human and social capital) (e.g. Jayawarna, Rouse, & Kitching, 2013; Opute *et al.*, 2020) significantly facilitate entrepreneurial processes.

2.1 Family Business

The pivotal role that family businesses play in both the stability and health of the global economy has been reiterated in entrepreneurship discourse (e.g. Ramadani *et al.*, 2017; Hamrouni & Mnasser, 2013; Duh, Tominc, & Rebernik, 2009). Reinforcing the importance of family businesses to global economies, more recent literature (Khosa, 2020) documents that several studies conducted in varied countries underline the significance of family businesses to national economies. Venter and Farrington (2009) note that family businesses globally account for most employment and gross national product and estimate the contribution percentage in the non-communistic world to range from 45% to 70%. Thus, family businesses contribute significantly to national GDPs (see Table 1).

Given its importance to national economies, family business remains a key premise in entrepreneurship discourse (e.g. De Massis & Foss, 2018; Goel & Jones, 2016). During the past two decades, family business discourse has identified a plethora of factors that influence entrepreneurial initiatives (e.g. De Massis & Foss, 2018; Goel & Jones, 2016; Kotlar *et al.*, 2018). Responding to research advocacy for a psychological perspective in the illumination of family influence on entrepreneurial processes (e.g. De Massis & Foss, 2018; Jiang *et al.*, 2017; Opute *et al.*, 2020), this study explores how family influence affects the entrepreneurial orientation of ethnic minority businesses. A central thread in the family business discourse is the longstanding notion that family control qualitatively shapes behaviours and phenomena (Gedajlovic *et al.*, 2012; Jiang *et al.*, 2017). Thus, entrepreneurship orientation would be shaped by family influence. Family influence shape businesses (Hoffman *et al.*, 2006), from the point of how businesses are governed, structured, and managed. It is also noted that family influence would also shape entrepreneurial behaviour relating to the use of social capital (e.g. Moos, 2019; Timons & Spinelli, 2009), human capital (e.g. Dyer, 2014; Danes *et al.*, 2009; Dawson, 2012) and financial capital (e.g. Athwal, 2017; Danes & Brewton, 2012).

Table 1

Family business' contribution to national GDP in several countries

Country	%	Country	%
Bahrain	28%	India	66%
Argentina	30%	Malaysia	67.2%
Finland	40-45%	UK	70%
S. Korea	48.2%	Peru	75%
Uruguay Venezuela Singapore	50%	Philippines	76%
Belgium Germany	55%	Dominican Rep.	80%
US	57%	Brazil	85%
France Portugal El Salvador Colombia Costa Rica Chile	60%	Mexico	90%
Spain China	65%		

Source: Adapted from Tharawat Magazine (2016)

2.2 Ethnic Minority Businesses

Waldinger, Howard and Ward (1990) observe that ethnic entrepreneurship involves a set of connections and regular patterns of interaction among people sharing a common national background or migration experiences. In the light of the reality that entrepreneurship is a critical aspect of economies, at local, state and national levels (Blanchett *et al.*, 2019), the contributions that the cohort of ethnic minority businesses make in societies in which they operate, cannot be under-estimated. Expectedly therefore, ethnic minority businesses are gaining increasing importance for academics and policy makers (Decker *et al.*, 2014; Hagos *et al.*, 2019; Opute *et al.*, 2020).

Nonetheless, while explanations abound in generic entrepreneurship literature on why individuals choose to start their own businesses (Verheul *et al.*, 2010; Chan & Quah, 2012; Zwan

& Hessels, 2013), knowledge is limited on the factors that explain entrepreneurial orientation amongst ethnic minority businesses (e.g. Hagos *et al.*, 2019; Opute *et al.*, 2020).

Capital theories (human, social and financial) have been emphasised as relevant in the understanding of ethnic minority businesses (e.g. Hagos *et al.*, 2019; Opute *et al.*, 2020). Human capital - the set of skills and knowledge gained through the learning process of an individual to enhance productivity (Xu & Fletcher, 2017), is pivotal to business performance (Eresia-Eke, 2013; Opute *et al.*, 2020). This importance of human capital in ethnic businesses has also been reiterated in recent literature on the cultural influences on entrepreneurial orientation of Igbo entrepreneurs in Nigeria (Igwe *et al.*, 2018). Generally, higher levels of human capital are associated with business growth and higher earnings (Rauch & Rijsdijk, 2013; Parker, 2009). Reports about the levels of human capital within ethnic minority groups are however mixed (Neumeyer *et al.*, 2019; Brown *et al.*, 2019). In the EMBs discourse, it has been noted that entrepreneurs of ethnic minority descent tend to be disadvantaged in accessing education and training resources (Kasperova & Kitching, 2013). Consequently, Eresia-Eke and Okerue (2020) argue for substantial investment towards the acquisition of managerial skills to improve the coping ability of African immigrant entrepreneurs who also belong in the ethnic minority cohort. In this study, the focus is on understanding how EMBs process human capital decisions.

The importance of social networks to EMBs has also been noted in entrepreneurship discourse (e.g. Hagos *et al.*, 2019; Opute *et al.*, 2020; Katila & Wahlbeck, 2011). According to the social network viewpoint, the networking and social structure of societies and emergent value structure shape entrepreneurship. Networking and social capital are critical knowledge sources for entrepreneurs (e.g. Miao *et al.*, 2017), therefore the networking practices of ethnic minority entrepreneurs will influence their start-up, as well as outcomes (success or failure) (e.g. Zillur *et al.*, 2018; Hagos, 2015).

Equally, financial capital has been noted as a critical entrepreneurial orientation factor from the point of start-up decision, as well as decisions that determine entrepreneurship success or failure outcomes. Literature suggests that some social groups may be financially disadvantaged and as a result may not only depict low entrepreneurial start-up propensity but also exhibit poor entrepreneurial performance (e.g. Parker, 2004).

As a reminder, this paper takes a psychological purview to understand how family influence shapes entrepreneurial orientation of African immigrants in the UK, illuminating start-up implications, entrepreneurial decision making and judgment from the point of how social, human and financial capitals are used, and performance implications. In line with the theoretical premise of this paper, literature is reviewed next on entrepreneurial orientation theory, and culture and entrepreneurship.

2.3 Entrepreneurial Orientation Theory, Culture and Entrepreneurship

2.3.1 Entrepreneurial Orientation Theory

Across the entrepreneurship and broader management domains, entrepreneurial orientation has become a major construct (Wales, 2016). The importance of this topic is not only underscored by the accelerating research interest but also by the increasing advocacy for further illumination of the theory (e.g. Wales, 2016; Covin & Miller, 2014; Covin & Wales, 2012; Anderson *et al.*, 2015; Wales *et al.*, 2013). Though, generally viewed as a strategic posture, entrepreneurial orientation has been conceptualised differently (for a detailed review, see Covin and Wales, 2012, p.679) (Wales, 2016; Covin & Lumpkin, 2011). This study invokes the conceptualisation offered by Anderson *et al.* (2009) which contextualises entrepreneurial orientation to include a firm's decision-making practices, managerial philosophies and strategic behaviour that guide the entrepreneurship activity. According to Wales (2016), the three dimensions of entrepreneurial orientation that reflect the overarching strategic posture of a firm are innovativeness, proactiveness and risk-taking, dimensions that emerged from Danny Miller's seminal work on firm's strategy making (Miller, 2011).

Entrepreneurial orientation theory has been conceived as a dispositional or behavioural construct (Covin & Lumpkin, 2011). According to Nwankwo and his colleagues (2011), ethnic minority businesses are far more diverse than generally assumed. Inspired by that substance, this study seeks to understand the entrepreneurial orientation of the ethnic enclave covered in this research. Premised in the psychological foundation, a behavioural construct of entrepreneurial orientation is the case here, and we specifically invoke entrepreneurial orientation conceptualisation that recognises the mixed-embeddedness and social network perspective that contextualises human, social and financial capital parameters for explaining entrepreneurial orientation in ethnic minority businesses (e.g. Ram, Theodorakopoulous, & Jones, 2008; Hagos *et al.*, 2019; Opute *et al.*, 2020). Leveraging the foundation that entrepreneurial orientation is manifested through entrepreneurial processes and behaviour (Ireland, Covin, & Kuratko, 2009), this study aims to understand entrepreneurial orientation from the point of how culture (family as a lens) feeds into decision making processes and judgement making regarding the use of the three core capital dimensions; human, social and financial.

2.3.2 Culture and Entrepreneurship

The fundamental role that culture plays in the understanding of behaviour has been underlined in various thematic discourse, for example management (Opute, 2012; Hofstede, 2011; Opute, 2014), marketing (e.g. Opute *et al.*, 2013; Opute and Madichie, 2016; Opute and Madichie, 2017), and entrepreneurship (e.g. Hagos *et al.*, 2019; Opute *et al.* 2020). Culture has been defined in many ways; Hofstede (2011: pp 3) defines culture as *"the collective programming of the mind that distinguishes the members of one group or category of people from others"*. Culture is the characteristics and knowledge of a particular group of people that value similar aspects of life. It is a way of life of a group of people usually accepted without thinking or questioning, and that

are passed along by communication and imitation from one generation to the next (Abedin & Brettel, 2011; Li & Karakowsky, 2001; Liu, 2010).

Conventional viewpoint describes culture to include norms, collective experiences, collective memory, traditions, language, religion, art, music, values, beliefs, symbols social history etc. (Hofstede, 2011; Opute *et al.*, 2020). However, post conventional insight argues that the life journey that individuals pass through (e.g. patriotism, nationalism, and past war experience) significantly shape their behavior (e.g. Hagos, 2015; Opute 2017).

In further literature that views culture from the point of people's orientations toward individualistic or collectivist inclination, it has been suggested that some cultures attach much importance to relationship and common good than individual success and achievement (Okhomina, 2010). Collective achievement is thus the focus, rather than the attainment of individual goals. These cultures place more importance on network and group benefit rather than the task to be performed or the deal to be completed (Hofstede, 2001; Hofstede, 2011; Brewer & Venaik, 2011). Indeed, some form of personal sacrifice may be necessary for the sake of the common good and an unrelenting quest of an objective, like the accumulation of wealth, is not held in esteem and is thus given low status (Mooij & Hofstede, 2011; Mooij, 2018). As a result of these cultures' reluctance to commercialize family relationships and the tendency to personalize commercial relationships, the possibility and acceptability of personal advancement through entrepreneurship may be inhibited (Hagos 2015; Opute *et al.*, 2020).

In ethnic minority entrepreneurship discourse, cultural has been lauded as underlining factor for understanding entrepreneurial orientation (e.g. Hofstede, 1994; Hagos *et al.*, 2019; Opute *et al.*, 2020; Patel & Thatcher, 2012). The cultural theory proposes that ethnic and immigrant communities are armed with culturally molded attributes such as membership of a strong ethnic community, frugality, taking of risk, compliance to social value patterns, camaraderie and faithfulness, and inclination towards self-employment (Urban, 2011; Wang & Altinay, 2010; Jones *et al.*, 2012). These attributes afford an ethnic resource which can accelerate and foster entrepreneurship activities and performance (Ram & Jones, 2008).

The cultural perspective attempts to understand entrepreneurship activities from the point of social networks in social groups influence entrepreneurial behavior. It takes a Weberian slant to entrepreneurship, where capital growth and entrepreneurial behaviour is highly conditioned by social structure (Weber, 1958), for example, it has been argued that some peculiar value systems and religions drive entrepreneurial spirit (Patel & Thatcher, 2012). It is also suggested that some ethnic groups are gifted with intrinsic social establishment and ethnic resources that cultivate entrepreneurial endowment (Ibid). A case in point, the business achievement of South Asians in Britain, is largely credited to tight and close kinship and peer networks which produce social capital in terms of workforce, local clientele, and financial resource (Basu, 2011; Ram *et al.*, 2008; Wang & Altinay, 2010). According to further literature, the extent of networking among ethnic minority entrepreneurs will influence their success or failure outcomes (e.g. Hagos *et al.*, 2019; Hagos, 2015; Opute *et al.*, 2020). Within this foundation, it is argued that when entrepreneurs network and interface with one another, they would generate relevant knowledge and resources e.g. new products, marketing strategies, marketing formation and even potential for new

suppliers and entering new markets. However, despite the social network benefits (e.g. employment of personnel, attainment of capital, flow of information, trust building etc.), strong bonds within social networks could also impact negatively on entrepreneurial orientation and growth of ethnic businesses (e.g. Hagos, 2015; Basu, 2011; Opute *et al.*, 2020).

3. Method

It has been noted in family business literature that firms would depict qualitatively different behaviours due to family control (e.g. Jiang *et al.*, 2017; Gedajlovic *et al.*, 2012). Recognising that understanding how family differences influence business orientation and goals is of central importance (Combs *et al.*, 2017; Danes, 2014), this study used a qualitative approach involving the use of in-depth interviews (lasting between 60 and 90 minutes) to understand the family influence on the entrepreneurial orientation of Eritrean EMBs in the UK. Following small business precedence (Pret *et al.*, 2015), 10 entrepreneurs participated in this study. To select participants that fit the focus of this study, purposive sampling method was used (e.g. Saunders *et al.*, 2012; Hack-Polay *et al.*, 2020). Fifteen EMBs were invited to participate in this study but only five EMBs indicated their availability for participation. To achieve the sample of 10 entrepreneurs that participated in this study, a combination of convenience sampling (e.g. Saunders *et al.*, 2012) and snowballing (e.g. Salganik & Heckathorn, 2004; Ramirez-Valles *et al.*, 2005) techniques were used. For the former, five entrepreneurs that exhibited traces of family involvement in Opute *et al.* (2020) were identified while a further five entrepreneurs were selected using the snowballing approach. Convenience sampled participants were EMBs that have participated in previous researches conducted by one or two members of this research team, while the other five participants (snowballing-based sample) were suggested by the five participants that were convenience sampled. Participants were entrepreneurs engaged in entrepreneurial activities that included food stores (5), merchandising (3) and services (2), whose businesses have existed for a period ranging from 6 to 12 years.

Participating entrepreneurs were informed that their participation was voluntary, and they could withdraw their participation at any point in time, if they so wished. Also, they were informed that the data obtained from the interviews would be taken care of confidentially and would only be used for the purpose of this study. The participants were also assured that their identity or that of their businesses would be held confidential. Interview questions were focused at capturing the entrepreneurs' experience and attitudes from the point of their entrepreneurship start-ups, orientation dynamics - sourcing finance, human capital and social capital, and the performance outcomes of the entrepreneurial endeavours. Each interview carried out in this study was recorded and transcribed verbatim.

Inductive analysis was used in this study to gain a full sense of the data derived from the interviews (Bryman & Burgess, 1994; Thomas, 2006). Thorough reading of raw data was undertaken to obtain meaning from the data and organise them around concepts and themes (op. cit.). Towards ensuring that emergent findings match with the raw data, an iterative process (Smith & Osbourn, 2003) involving thorough reading of interview transcripts was undertaken,

moving backward and forward in the text (Auerbach & Silverstein, 2003), and memos were written and appropriate coding done (Smith & Osborn, 2003).

To identify the cues relating to the focus of this study, we carefully examined the interviewees' comments (Czarniawska, 1998) and notes were made to document striking issues (Smith *et al.*, 2013). In the analysis we focused on bringing the respondents' stories "into a meaningful whole" (Czarniawska, 1998, p. 2) but also retaining the "individuality of each participant's experiences" (Kakabadse *et al.*, 2010, p. 289). Adhering to analytical guideline for enhancing understanding and explanation, cross-case analyses were carried out in this study (Miles & Huberman, 1994). So, we compared the interview memos and coding for each transcript against those of other interviews.

Aligning to methodological logic (Lincoln & Guba, 1985; Smith & Dunworth, 2003), several steps were taken in this study to address interpretive biases in qualitative research: interviews with entrepreneurs were audio recorded (e.g. Ayoko *et al.*, 2012; Opute, 2014), verbatim comments from the interviewees were used to support the findings from this study; and feedbacks were obtained from the original informants to ensure uniformity of findings with the informants experiences (e.g. Iwu & Opute, 2019).

4. Findings and Discussion of Findings

4.1 Entrepreneur Start-Up

Empirically, this study found a substantial family influence on the actual entrepreneurial judgement and decision processes of participating Eritrean entrepreneurs from the point of start-up dynamics, accessing of financial, human, and social capital, and performance outcomes of the entrepreneurial uptakes. Thus, this study adds vigour to the notion that culture exerts fundamental influence on ethnic minority businesses (e.g. Opute *et al.*, 2020; Hagos *et al.*, 2019) and family businesses (e.g. Craig *et al.*, 2014; Chrisman *et al.*, 2012).

Insights from interviews show that a major impediment to the start-up plans of the participating entrepreneurs was obtaining loans from banks. Therefore, the only way out for them to fund their start-up and escape unemployment (driving factor for 8 participants) was to explore private funding options. Given their strong attachment to their Eritrean community, a tendency that is culture driven, obtaining non-collateral-based and interest-free loans from friends, relatives and people that fitted the Eritrean categorisation, was the preferred option as most of them would rarely confide in people beyond their cultural community.

"Yes, I borrowed money from my people so that I can start my business. Yes, my people are my Eritrean brothers and sisters. I can always run to them when I'm in need." (Interviewee 3)

"When I wanted to start my business, I made enquiries about obtaining a loan, but the conditions were beyond me, so I asked amongst the Eritrean people who I see as part of my family and they contributed money together and gave me as loan to start my business. It was very helpful to me." (Interviewee 6)

“After searching for job for a long time, I started thinking of starting a business. Since I regularly attended the monthly meeting of the Eritrean community in the area I lived, I asked my brothers [Eritrean people] for advice on what nature of business I could start, and based on their advice, I started a food store. To start the business, I borrowed money from the Eritrean Association in the area I lived.” Yes, I would say my family, which includes my biological brother and my Eritrean brothers influenced not only my ability to start my business but also the nature of business. (Interviewee 10).

Unlike the other 9 participating entrepreneurs, interviewee 9 who was married to a European woman, funded his entrepreneurial start-up combining financial support from Eritrean contacts as well as from bank loan obtained for him by the parents of his wife in their own (parents of the wife's) name. He explained his start-up thus:

“I started my business because I was convinced that I would earn more through the business to meet the needs of my family than taking a paid job. As a non-European, it would be very challenging, if not impossible for somebody with my financial standing, to obtain a loan from the bank. I am lucky that the parents of my wife (who are Europeans) obtained a loan in their name for me, and with that loan and the money I borrowed from my brothers in the Eritrean community I could start my business.”

4.2 Entrepreneurial Orientation (The Use of Financial, Human and Social Capital)

Except for interviewee 9, all participating entrepreneurs in this study reflected a major family influence in their entrepreneurial orientation. Embracing organisational and industrial sociology foundation (e.g. Adler & Kwon, 2002), entrepreneurship discourse directs attention to the importance of managerial networking and interpersonal relationships in enabling vital information exchange and leveraging resources and knowledge among ethnic minority businesses. Concurring to that importance, interviews were focused at understanding entrepreneurial judgment and decision making of participating EMBs from the point of accessing financial, human, and social capital and family influence.

For Eritrean EMBs that participated in this study, social identity - the family is a fundamental entrepreneurial judgment and decision-making factor on matters relating to sourcing of financial capital. Essentially, all but one of the entrepreneurs rely mainly on financial support (loans) from close family relations, friends, and people from the Eritrean community. Participating EMBs strongly value the importance of identifying with their social categorisation and display averse behaviour from the point of sourcing necessary finance from beyond their cultural enclave in their entrepreneurial activities.

“To put it very simply, I keep my matters in my family: so, if my business is struggling, I would ask my Eritrean people around me or ask my brothers and sisters (even those back in Eritrean), and if they cannot help themselves, they would recommend other Eritreans that I could turn to for help.” (Interviewee 5)

"I have never considered borrowing money from non-Eritreans or from the bank to finance my business. The reason is that if I have problems paying back my loans on time, my Eritrean people will show some understanding but not the bank or people who are not Eritreans." (Interviewee 2)

"It is very difficult to trust people you don't know. By people you don't know I mean people who you may know physically and may be friendly to them, but you don't know how they would behave in some certain situations, for example, when they are angry or when you own them money. If I need to generate more money to run my business, I go to my Eritrean people." (Interviewee 7)

"In my Eritrean culture, it is very important that we share what we have amongst ourselves, so, we discuss our problems with one another. When I started my business, I did not think much about taking a loan from the bank, rather what I did was to discuss my plan with fellow Eritreans and through that I raised money to start my business. My business is a small one, and whenever I have need for extra money to keep my business going, I take loans from my Eritrean people." (Interviewee 8).

Interviewee 9 does not source finance mainly from family members. To the contrary, he relies minimally on financial support from his family members (including friends and people in the Eritrean community) but strategically leverages his access to his parent-in-laws and their contacts to source funds to expand his business and also expand the reputation of his business across various cultural domains.

"Yes, I obtain loans from brothers and friends in the Eritrean community to support my business. But I don't focus only on Eritreans when trying to source finance to support my business, as a matter of fact, a large part of the external funding that has enabled my business to expand was sourced through the parents of my wife and people in their network. It is my goal to continue to grow my business, so I will continue to use the financial support of the parents of my wife and their network as a major source of finance." (Interviewee 9).

From the point of human capital, the data for this study suggest a major family influence on human capital decision making in the explored EMBs. In-house recruiting is prioritised by all participating entrepreneurs as this approach ties into their identity background. Thus, against the economic rationality of hiring the best qualified employees and leveraging the inherent image enhancing benefit of sourcing human capital beyond their cultural enclave, Eritrean entrepreneurs (9 out of 10 participating) hire mainly from their ethnic domain.

"Three people work with me in this business and they are all Eritreans. It is important for me to have Eritreans working with me because they are part of my family. When I started my business, it was my Eritrean people that helped me with loans. Do you think other people who are not Eritreans would listen to me when I ask them for loan?" (Interviewee 1).

"My business has existed for 7 years and only Eritreans work in my shop. I prefer to work with Eritreans because I know them, and I can trust them more than I will trust other people" (Interviewee 4)

"Yes, all the people who work with me are Eritreans. Eritrean people are my family. They feel what I feel, and they will also understand me when things are not working fine. For example, if business is not moving well and I am having financial problems, they will understand me" (Interviewee 6).

A plausible reason for this operational approach is their cultural principle that "what belongs in the family must remain in the family". Explaining this point, Interviewee 8 notes that his family back home in Eritrea expects him to see other Eritreans as part of his family, and he should consider them first. Explaining further he comments: *as a nation, we are not a rich people, so we try to keep what we have in the family, therefore I would always hire an Eritrean, even if I had the opportunity to hire a non-Eritrean who may even help my business. The problem is they may help my business, but the person will also take what I should have given to my Eritrean brother or sister.*

Based on the evidence from interview with interviewee 9, not all Eritrean entrepreneurs may display chronic social enclave identity congruence behaviour in utilising human capital. According to him, the drive for successful entrepreneurship, amongst other factors, make an open human capital sourcing approach essential. As a result, family factor may not be the primary entrepreneurship judgment and decision-making factor.

Yes, Eritrean people work for me, but I also hire people who are not Eritreans if I have the feeling that they are better suited for the task or if I feel hiring them would enable me gain access to other market segments. In the market, competition is high, so as an entrepreneur, I have to make decisions that would favour my business." (Interviewee 9)

The fundamental role of the family on the mind construct of Eritreans and influence on the entrepreneurial orientation of Eritrean EMBs in the UK was also underlined in the social networking behaviour. From the interview evidence, participating entrepreneurs display a high tendency of within-cultural enclave behaviour driven largely by mistrust towards people who are not Eritrean. The direct consequence is that they tend to isolate from people who do not share the Eritrean identity. The entrepreneurial implication of that tendency is that participating entrepreneurs were opposed to leveraging network and social capital resource beyond their Eritrean cultural group, entrepreneurial judgement that they described as rational.

"I have lived in this country for over 15 years and I have contacts, both Eritreans and non-Eritreans. In my business activity, I try to be careful, the only people I get involved in doing my business are Eritrean people." (Interviewee 6)

"To start my business, I got financial support from my Eritrean people. These people are my network and I seek help and support from them in running my business" (Interviewee 3)

"The Eritrean people see me as one of theirs, I feel safe with them and they are the network I need to support my business. They want me to succeed in my business, so they will give me advice and information that would help my business." (Interviewee 1).

Further support for the cultural motivations for how they process their entrepreneurial decision making from the point of leveraging social capital and network is provided by interviewees 8 and 10.

“My parents always said to me - don't trust people you don't know. The people I would say I know are Eritreans. So, to answer your question, in doing my business, the people I network with are my Eritreans brothers and sister, because I can trust them.” (interviewee 10)

“As I said earlier, my networks are mainly Eritreans, but that does not mean that I don't have contacts with non-Eritreans. I am not very sure that networking with people who are not Eritreans would help improve my business.” (Interviewee 8).

As was the case for financial and human capital, the cues obtained from interview with interviewee 9 contrasted the insight of a major social identity congruence behaviour (i.e. major family influence) on the leveraging of network and social capital from the other 9 entrepreneurs. In his response, he does not only remind of the economic rationality but also his bi-cultural family background:

“Yes, I also network with other people who are not Eritreans who can help my business plan. My wife is European, and her parents support my business and they also have networks that are vital to my business. So, it will be silly for me not to utilise such networks that would facilitate the success of my business. I am in two-worlds (meaning his family includes his Eritrean people as well as his wife and her relatives who are not Eritreans).” (Interviewee 9)

To gain a deeper understanding of the motivational cues behind their decision making, we asked participating entrepreneurs how they can economically justify such entrepreneurial behaviour that may economically harm their businesses. Interviewees offered a range of responses that reflect a conscious orientation where protecting cultural pride and family values supersedes economic gains:

“When I look back, I remember my journey, the struggle along the way, and how I have been able to start this business. All my efforts to get financial support from banks and the authorities failed, due to the so much called collateral security. At the annual come together of Eritreans, I shared my challenges with my brothers and sisters and through that I was able to source some money to enable me to start this business. They gave me loans without asking for collaterals. Do you now understand the reason why it makes sense to follow my family values in hiring my Eritrean brothers and sisters?” (Interviewee 5).

Resonance to the decision-making rationality captured in the comment of interviewee 5 above is found in the comments of Interviewees 7, 8 and 10 below:

“When I arrived the UK, I was all on my own, and the culture and ways of doing things were completely new to me. Life at that moment was very tough, and the Eritrean community was like home to me. I could always run to them to talk about my challenges and they always gave me helpful advice and sometimes money. My culture teaches us to stick together and this is a principle that every Eritrean family considers very important. Our past war experience has taught

us to trust more our Eritrean people than other people. So, I want to help my own Eritrean people, and also I trust them more, therefore the two people that work with me are Eritreans, and if there is future need, I will continue to hire Eritreans for my shop.” (Interviewee 7).

“Yes, I try to source my manpower from my ethnic community for the simple reason that my family teaches me to do that. Yes, I know that hiring workers who are not Eritreans could benefit my business, but that is not guaranteed. Different people different culture, different ways of doing things, and different attitude. I like to keep things in the family, and also my Eritrean people would understand me better than people from other cultures, and when the going gets tough, I can always run to my Eritrean community and they would receive me and support me. So, when I want to hire workers, I check my Eritrean community.” (Interviewee 10).

“As I said earlier, my networks are mainly Eritreans, but that does not mean that I don't have contacts with non-Eritreans. However, for the purpose of my business, I only make use of my networks in the Eritrean community, because I know that will help my business as much as networking with non-Eritreans would.” (Interviewee 8)

4.3 Performance of Explored Ethnic Minority Businesses

Majority of the explored entrepreneurs (6) can be described as failing and are barely breaking even. Performance was measured based on the monthly take-home of the entrepreneurs and support staffs after all monthly expenses had been settled. While the push factor motivated the entrepreneurial uptake of the explored entrepreneurs, as they aspired to be active and earn some money for their daily needs, their entrepreneurial drive lacked pep and strong push to maximise economic gains and grow their business. Instead, all but one entrepreneur found comfort in their little earnings which kept them barely afloat.

“From the point of making huge financial success, it would be right to say my business is not doing well, but I can take care of my family and I am helping other Eritreans and their families.” (Interviewee 8)

“Money cannot buy happiness. I am not making much money from my business, but I can afford the needs of my family. I don't have much money, but I am happy that I am helping my Eritrean people.” (Interviewee 10).

“In my culture, a man is happy when his family is happy. My business is not making profit, but I have no debt. My Eritrean people support me, and I also support them and also my family back home.” (Interviewee 2)

Entrepreneurial decision making and judgement amongst participating entrepreneurs was not propelled by economic evaluations, but rather by deeply rooted family influence. Largely body in the UK but mind in their native country, participating entrepreneurs showcase their cultural values in their business orientation. Consequently, their decision making and judgement (for example from the point of utilising more skilled labour who may not be Eritreans, and utilising networks and social capital beyond their cultural domain) is dominantly family control based.

Being highly social identity congruent, the family (Eritrean people) is the focal point in their entrepreneurial activity. As a result, most of the participating entrepreneurs were satisfied with staying afloat and breaking even in their entrepreneurship activities. Thus, maximising profit was not a primary aim of most of the entrepreneurs, rather they derived more satisfaction is drawing closer to their family (Eritrean community) and sharing not only their joys together but also their struggles and challenges. These performance insights connect to prior knowledge that suggests that not all entrepreneurship activities may be driven by economic maximisation logic (Gagné *et al.*, 2014). In an interesting insight, interviewee 7 underlines the importance of the affective attachment to the Eritrean social group, even if that has economic consequences for his business. According to him, he also does a part-time job to enable him meet up economically, as his business is not making profit, an outcome which he admits would likely be better if his business decisions were driven by economic and not socio-emotional logic.

One exception was found with regards to the entrepreneurial orientation of prioritisation of affective and socio-emotional endowment over economic gains. Explaining his entrepreneurial orientation, interviewee 9 does not only underline his profit maximisation focus but also the operational mechanics endorsed towards securing that target:

"I am Eritrean, and I love my Eritrean people and the culture, but I started this business so that I can earn money to take care of my immediate family (my wife, my two children and myself). So, of course making profit is my first goal and to ensure that I make profit, I have to make sure that I make the best decisions for my business. Yes, Eritrean people work for me, but I also hire people who are not Eritreans if I have the feeling that they are better suited for the task. Yes, I also network with other people who are not Eritreans who can help my business plan."

Based on the overall evidence for interviewee 9, it would seem logical to believe that the relationship between family influence and entrepreneurial navigation pattern of Eritreans may not always be linear. Contingent on the intercultural dynamics that characterise the entrepreneur's environment, family congruent behaviour may be replaced by cultural adaptation induced rationality.

5. Implications of the Study and Future Research Directions

5.1 Theoretical Implications

This study contributes to the psychological perspective on ethnic minority businesses in several ways. First, it contributes to the literature on how EMBs navigate the start-up and orientation processes challenges (e.g. Opute *et al.*, 2020; Hagos *et al.*, 2019). Given their inability to offer collateral required by banks nor gain financial support from citizens from their country of abode, majority of EMBs usually fund their start-up through financial support from people within their social enclave (e.g. Opute *et al.*, 2020; Hagos *et al.*, 2019).

According to a popular adage, you can take a girl out of the country, but not the country out of the girl. In many ways, the empirical insights from this study lend credence to that adage:

entrepreneurial orientation of participating entrepreneurs is significantly induced by their cultural DNA that is conditioned by family influence, an insight that reinforces family firms literature and identity role (e.g. Yoo *et al.*, 2014). Analysed along existing literature, this study contributes to socioemotional wealth discourse relating to family businesses (e.g. Jiang *et al.*, 2017; Berrone *et al.*, 2012). Empirically, this study resonates with that foundation and notes that affective needs and socioemotional endowment rather than financial aspects may be the locus of some family businesses (or family-influence driven SMEs as in the case of this study). Elaborated further, these insights reinforce the notion that family differences shape entrepreneurial orientation and goals (e.g. Combs *et al.*, 2017; Danes, 2014).

According to social-embeddedness notion, the economic behaviour of individuals does not occur in a vacuum, rather it is embedded within a system of social network (Granovetter, 1985). Thus, relationships or group membership is the basis for economic opportunity and sum-up to constitute an individual's social network of influence and support (Davidson and Honig, 2003; Yoo *et al.*, 2014). Expectedly, thus, entrepreneurs would leverage the resources embedded in such relationships and networks (Le Breton-Miller & Miller, 2009; Opute *et al.*, 2020). Participating entrepreneurs in this study are fundamentally family influence driven, display strong family attachment and bonding and identity congruent behaviour. Collective identity is therefore a significant entrepreneurial behaviour factor amongst the entrepreneurs as they have more confidence and trust in Eritreans than non-Eritreans. As a consequence, the leveraging of resources (financial, human and social) embedded in networks and relationships is only within social enclave (Eritrean), a finding that contributes to the social-embeddedness and economic behaviour notion (Le Breton-Miller & Miller, 2009; Yoo *et al.*, 2014) as well as the notion of major cultural artefacts that significantly condition the mind construct of Eritreans (Opute *et al.*, 2020; Hagos *et al.*, 2019).

Indeed, this study offers insights that connect to the notion that family differences shape entrepreneurial orientation and goal (e.g. Combs *et al.*, 2017; Danes, 2014). As a result, the culture that conditions the mindset would influence how entrepreneurs make entrepreneurial judgments and process decision making, and outcome prioritisation. Thus, family natured businesses are driven by family-related aspirations and goals (Holt *et al.*, 2017)

The above conclusion may suggest that culture is stagnant. That may not always be the case; in other words, family influence and entrepreneurship orientation and goal may not always depict a linear pattern in the Eritrean community, as documented by the exceptional case of interviewee 9 whose entrepreneurial orientation and goal are not blindly driven by affective and emotional attachment to the Eritrean community. That insight lends support to the psychological notion that acculturation sets in when cross-cultural exchange takes place (e.g. Wanki, 2018; Opute *et al.* 2020), even in socio-cultural groups that may depict chronic social identity congruence behaviour. A plausible reason for such acculturation is that personal identity mediates social identity congruency (Wanki, 2018).

Extending further the findings from this study in line with broad performance literature, this study offers insight that lends support to Islamic context literature which suggests that some organisations may prioritise non-financial performance (welfare of customers) (e.g. Galdeano *et*

al., 2019; Aracil, 2019) over financial performance. Indeed, as noted by these scholars prioritising customers welfare ultimately boosts financial performance. Furthermore, explaining the performance findings in line with identity foundations, this study corroborates prior literature which has not only documented a high level of social identity congruence behaviour of the explored social community but also point to deeply rooted post-conventional cultural artefacts (e.g. Opute, 2017; Hagos *et al.*, 2019; Opute *et al.*, 2020).

The findings of participating entrepreneurs displaying strong affective and socio-emotional behaviour towards their Eritrean people even up to the point of sacrificing entrepreneurial profit connects to the Ubuntu notion - which reflects commonality of African societies (Lutz, 2009). The Ubuntu notion portrays a viewpoint of life and value system that is strongly inscribed in the African person and culture that contrast Western viewpoint (Abodohoui *et al.*, 2020). As elaborated by Mbigi (1997), Ubuntu implies “I am because we are, and since we are, therefore, I am” (cited in Abodohoui *et al.*, 2020, p.197). Battle (1996) notes that the Ubuntu foundation is borne out of the Xhosa expression “*Umntungumntungabanyeabantu*” which implies “that each individual’s humanity is ideally expressed in relationship with others” (Chinomona & Maziriri, 2015, p.24).

Finally, from the point of family business literature, it is important to note that the nature of EMBs explored in this study do not match explicitly the categorisation for family businesses, as the family actors in the explored EMBs are more of behind the scene. However, though not physically present, they exert immense influence that leads to entrepreneurial processes that prioritise socio-emotional wealth over economic wealth. Compared to prior literature on family business, similarities as well as contrasts are found. On the former, this study supports the notion that family influence would shape entrepreneurial orientation from the point of the use of social capital (e.g. Moos, 2019), human capital (e.g. Dyer, 2014; Dawson, 2012) and financial capital (e.g. Athwal, 2017; Danes & Brewton, 2012). This study, however, contrasts the entrepreneurial orientation logic which suggests that social networks can be leveraged by EMBs to source human, social and financial capital for entrepreneurship success (e.g. Zillur *et al.*, 2018; Opute *et al.*, 2020 - Nigerian Sample), as socio-emotional benefit outweighs economic benefit. Consequently, a further contrast from this study relates to the established notion of family business playing a significant role in steering economic growth (e.g. Ramadani *et al.*, 2017). While family businesses may have the potentials to contribute to economic growth, achieving that would hinge largely on the cultural issues (including family) which condition their decision-making processes and judgement making in their entrepreneurship activities.

5.2 Future Research Directions

Situated within the family business and ethnic minority business literatures, this study contributes to knowledge in several ways, especially from the psychological viewpoint. In doing that, this study offers insights that not only enhance the understanding of the role that culture plays in the ways that ethnic minority businesses make their entrepreneurship orientation judgments and process decision making, albeit via hidden family influence, but also lays a

foundation to new directions relating to the culture discourse and entrepreneurship influence and other related domains. For example, the findings from this study add to the dynamism in the influence of culture on the behaviour of individuals. Indeed, this study shows that culture can exert deeply rooted impact on individuals such that their emotional attachment precedes economic logic in their entrepreneurial activities, a finding that does not only elaborate the preliminary evidence in prior research on this social enclave (e.g. Opute *et al.*, 2020, Hagos *et al.*, 2019) but also lends support to the belief that family differences shape business orientations and goals (Combs *et al.*, 2017; Danes, 2014). Further research is required to illuminate this social group, high social identity congruence behaviour artefacts, and differentiators to this social identity congruency and entrepreneurial orientation implications. Within that target too, a more elaborate exploration of ethnic minority businesses in this social enclave is necessary towards a better understanding of the extent to which family influence shapes their entrepreneurial orientation and performance. Future research should aim to shed light on the extent to which the value system of sacrificing economic wealth for socio-emotional wealth is a core characteristic of this social enclave or not. In other words, future research should address the sample limitation of this study.

According to acculturation theory, the more individuals are exposed to cross-cultural interaction and engagement, the higher the propensity for social identity congruence dilution (e.g. Schwartz *et al.*, 2010). Further literature however notes that acculturation capacity would hinge on the personal identity statuses (e.g. Schwartz *et al.*, 2012; Wanki, 2018) as well as the post-conventional cultural features that condition individual's mind-construct (e.g. Opute, 2017; Opute *et al.*, 2020). The tendency to be culture stagnant has been mentioned as a core feature of the Eritrean social group in recent literature (e.g. Hagos *et al.*, 2019; Opute *et al.*, 2020), a viewpoint that may explain why family driven socio-emotional endowment significantly influences entrepreneurial judgement and decision making in the explored EMBs. Given the evidence from this study, we draw attention to the need for more research to explicate the acculturation intricacies relating to the Eritrean and other social groups not only from the entrepreneurial activity point but also other theoretical domains that connect to the psychological perspective. Within that focus, efforts should be made towards enhancing the discourse on acculturation modalities and impact on family businesses. Critical questions in this regard include: what acculturation channels would enable social identity congruency and entrepreneurship orientation impact in the explored social enclave?, and to what extent would their acculturation shape entrepreneurial judgement and decision making processing from the point of how financial, human and social capital would be leveraged?

Extending the acculturation point, we remind that the relationship between family influence and entrepreneurial orientation of Eritrean entrepreneurs may not always be linear. Consequently, despite being highly collectivism oriented and the high propensity to prioritise the good of their own Eritrean people over economic gains, some may acculturate and endorse economic logic of maximising profit. Emphasising the importance of a cultural perspective, we re-echo Mazzi (2011), and call for further research that facilitates the understanding of business performance of family firms, a research premise that is critically important given that this link is complex and

conditioned by several factors that are yet uncovered in previous research (Chrisman *et al.*, 2012).

Finally, the EMBs explored in this study were relatively small (between 4 and 8 employees). Further studies that examine EMBs with larger employee and entrepreneurial capacity would contribute to enhancing the insights that have been captured in this study.

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Customer Accounting: Antecedents, Consequences and Moderators

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Abstract

The literature shows remarkably little effort in developing a framework for understanding the concept of customer accounting and its implementations. The authors synthesize the literature on the subject and provide a theoretical framework for future research. This is done by constructing a model that includes the antecedents and consequences of customer accounting, as well as the potential moderators, and from this developed research propositions. The implications of this research for management accountants are then discussed.

Key words

Customer Accounting, Management Accounting, Business Performance, Antecedents, Consequences, Moderators.

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1. Introduction

Customer accounting (CA) has attracted the attention of many researchers (Fish et al., 2017; Rust et al., 2004; Lemon et al., 2002). The concept of customer accounting (CA) emphasizes the measurement of customer profitability, and the development of taxonomy of customers using information from a company's accounting database (Cäker, 2007). Guilding and McManus (2002) and Roslender and Hart (2003) suggest a link between CA and business performance by virtue of CA's ability to identify key customers and thereby allowing management to target customers based on profitability and growth potential (Al-Mawali et al., 2012).

The need for CA is grounded on the growing popularity of Customer Relationship Management (CRM) as a strategic business orientation. What precisely is CRM? Payne (2000) asserts that CRM is concerned with the creation, development, and enhancement of individualized customer relationships with carefully targeted customers and customer groups resulting in the maximization of their lifetime customer value to a business. Sheth, Sisodia, and Sharma (2000) describe CRM as customer-centric marketing that puts the emphasis on understanding and satisfying the needs and wants of key customers or the most profitable customers rather than those of mass markets. A very important part of this definition of CRM involves the identification of strategically significant and profitable customers (Buttle, 2000), founded upon the proposition that not all customers are equally desirable (Ryals & Knox, 2001). Day (2000) points out that close relations are resource intensive, so not every customer is worth the effort. This aspect is particularly so for small firms which cannot invest as deeply or widely in their customers as big market players. Consider the Pareto 80/20 rule, applied in the finance industry: 80% of profits come from 20% of customers (Peppard, 2000; Ryals & Knox, 2001). More importantly, loyal customers are more desirable than deal-prone switchers (Page et al., 1996; Reicheld, 1996). Sheth and Sisodia (1999) depict that a small group of customers typically account for a large share of revenues and an even greater share of profits. These customers effectively subsidize a large number of marginal and, in many cases, unprofitable customers. Marketers' determination of whether to build a relationship with a particular customer should, therefore, be based on the costs of serving the customer and the profitability of doing so. Essentially, the decision should enhance company profit by focusing on profitable customers via more personalized/customized offerings and reducing the subsidization of unprofitable customers. For unprofitable customers, the appropriate strategy may involve the outsourcing of these customers (Sheth & Sisodia, 1999), for example, contracting with an outside vendor to serve them, or charging them a higher service charge.

But how do we know if a customer is profitable and important to a firm? Customer profitability can be ascertained through a customer accounting system that can compute the lifetime value of the customer. A critical element in the customer accounting system is its capability to account properly for the resources used in carrying out CRM-oriented activities, and the present as well as future revenues from serving key customers. Under the system, firms must be able to account for the costs associated with acquiring and maintaining customers, based on which a proper pricing schedule can be constructed to account for customers of different levels of profitability.

Although recent years have witnessed a modest increase in the number of studies promoting accounting analyses based on individual customers or customer groups (see, for example, Fish et al., 2017; Guilding & McManus, 2002), the number of such studies remain small. This is surprising in light of the high value given by managers worldwide to customer relationship management. In an attempt to tackle this deficit in our body of knowledge, the objectives of this study are to

develop a model to delineate the antecedents, consequences, and moderators of CA, and to formulate testable hypotheses for future research. The proposed hypotheses will, therefore, answer the following questions:

What conditions, internal and external, favor or inhibit the adoption of CA?

Whether or not CA leads to certain commercial outcomes?

What factors moderate the relationship between CA and these commercial outcomes?

2. Customer Accounting: The Definition

As with most novel fields of inquiry, CA has yet to reach the stage of having a standard definition and classification system. However, it may be helpful to start with the following four major versions of CA highlighted by Guilding and McManus (2002):

- Customer profitability analysis, operationalized quite simply by calculating the profit earned from individual customers, based on the costs and sales that can be traced to each customer (see for example, Juras & Dierks, 1993; Smith & Dikolli, 1995).
- Customer segment profitability analysis - same as customer profitability analysis except for that customer segments, instead of individual customers, form the unit of analysis (see for example, Quain, 1992; Ward, 1992).
- Lifetime customer profitability analysis - this method computes the lifetime value of customers by making cost and profit projection over the remainder of the lifetime of the trading relationship (Rust et al., 2004; Selden & Colvin, 2003; Reinartz & Kumar, 2003; Mittal & Kamakura, 2001; Reinartz & Kumar, 2000; Kidd, 2000). Specifically, with purchase figures obtainable easily from a customer accounting system, the lifetime value of a key customer or segment of customers can be assessed by using the following formula provided by Reinartz and Kumar (2003):

$$NPV \text{ of } ECMit = \sum_{i=1}^n \frac{AECMit}{(1+r)^t}$$

where NPV = net present value

i = the ith customer

t = the month in which NPV is estimated

n = number of months beyond t

l = lifetime duration of customer i

ECMit = expected contribution margin of customer i for a given month t

AECMit = average contribution margin of customer i in month t. AECMit is computed by summing all previous purchases made by the customer and multiplying the sum by m% to reflect the gross margin (that is, to account for the cost of goods sold). Then the cost of actual servicing/marketing cost is subtracted to obtain the contribution margin. AECMit should be updated dynamically whenever a new purchase is made so that the AECM estimate can be smoothed and used as a baseline for evaluating future purchases between t and l.

$P(\text{Alive})_n$ = probability that customer i is alive in month n, which can be estimated by using the NBD/Pareto model of Reinartz and Kumar (2003).

r = discount rate

NPV of ECMit is the estimated lifetime value of the i th customer. A positive net present value indicates that the customer is of important economic value to a firm. For new customers where previous purchase patterns are unavailable, the NPV figure can be estimated from existing customers with the closest profile.

- d. Valuation of customers or customer groups as assets - Customer relationship management advocates treating customer relationships as assets in a company (Morgan & Hunt, 1994; Wilson, 1986; Yau et al., 2000; Berry & Parasuraman, 1993; Grönroos, 1990; Berry, 1977). According to Ward (1992), Foster and Gupta (1994) and Guilding and McManus (2002), the value of a customer's relationship with a company can be assessed in like manner as valuation of any other asset in the company using valuation models like discounted cash flow analysis, option pricing models or comparables.

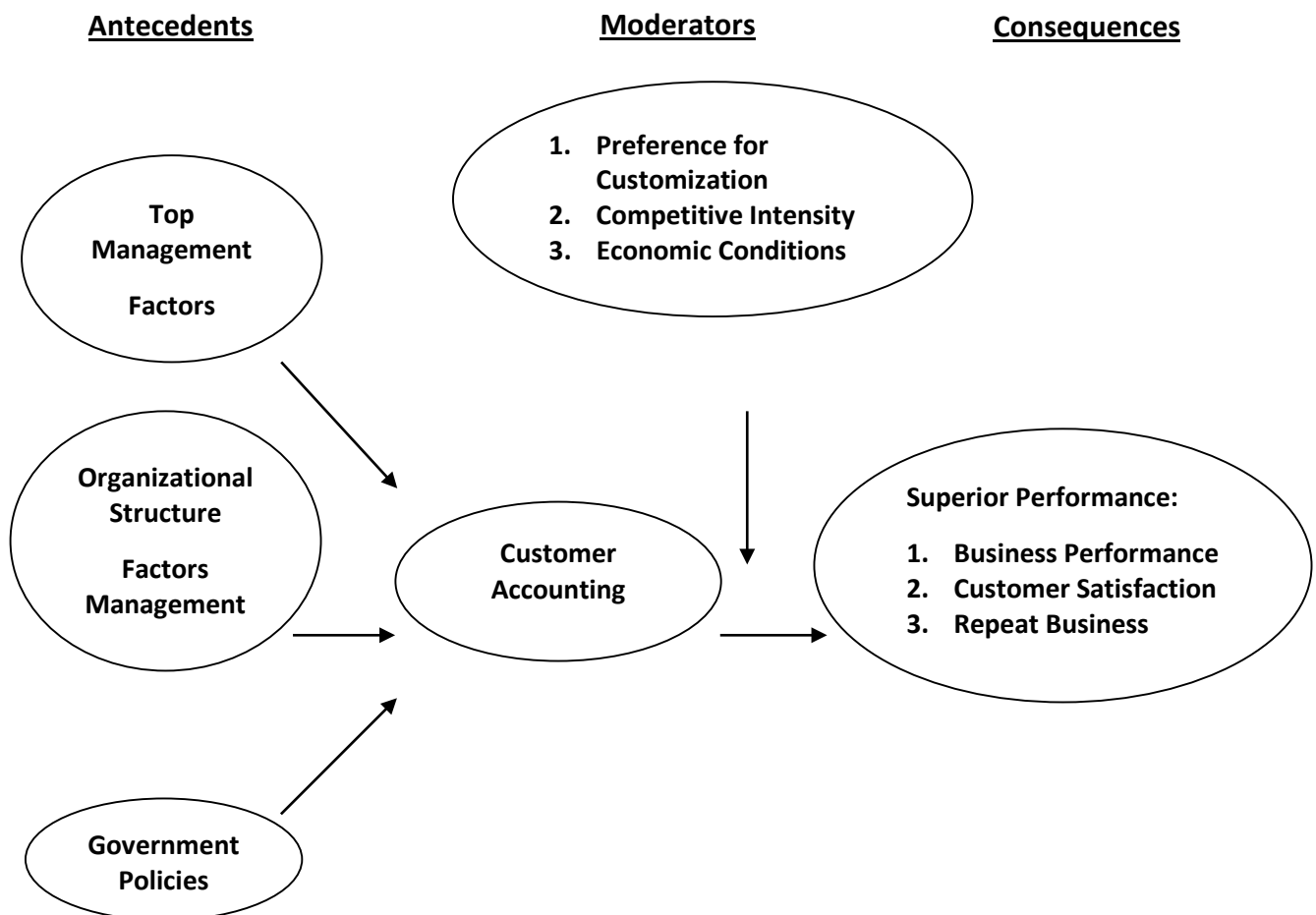
Nowadays, with the rapid development of computer technology and big data algorithms, the assessment of customer value can be done almost instantaneously in real-time. In this research, however, we are interested in the usage of customer accounting in a company, not the exact algorithm about how customer value can be calculated. As such, we include all the above four in the operational definition of customer accounting. That is, we assess customer accounting based on the extent to which the company has used any one or more of the above methods in assessing customer value. Specifically, we ask to what extent a responding company has done the following in the day to day operation of their business, and how this usage would affect the marketing performance of the company:

- a. Customer accounting (appraising profit, sales, or present value of earnings relating to a customer).
- b. Customer profitability analysis (calculating profit earned from a specific customer).
- c. Lifetime customer profitability analysis (extending the time horizon for customer profitability analysis to include future years).
- d. Customer segment profitability analysis (performing a customer profitability analysis, on a market segment or customer group basis).
- e. Valuation of customers or customer-groups as company assets.

2. Research Propositions

Figure 1 is a conceptual framework showing the inter-relationships between CA, the antecedent conditions that foster or hinder the development of CA, the consequences of CA and the moderator variables that affect the relationship between the use of CA and business performance. It serves as the foundation of the discussion which follows.

Figure 1: Conceptual Model



Source: Own elaboration.

3.1 Antecedents of CA

We divide the antecedent factors that may affect the level of CA usage in a firm into three groups: top management factors, organizational structure factors and government policies.

3.1.1 Top management factors

- a. **Top management support:** Most organization-wide projects require top management support for their adoption, and CA systems are no exceptions. CEOs must be oriented and committed to CRM if CA systems, which support CRM, are to be implemented successfully. CEOs must give clear instructions to and instill positive values in the entire corporation regarding its commitment to building a relationship with customers. Hence, we propose that:

P1: The greater the support from top management towards the adoption of customer relationship management, the higher the usage rate of CA.

- b. **Management consistency:** Argyris (1966) argues that a key factor affecting the implementation of company policies is the degree of inconsistency between what top managers say and what they do. Such inconsistency in the area of CRM may make junior managers feel ambivalent as to the amount of effort and resources they should allocate to CRM activities, which may lead to a lower usage rate of CA. Hence, we propose that:

P2a: The greater the inconsistency over time between top management communications and actions relating to CRM, the lower the usage rate of CA.

P2b: The greater the junior managers' ambivalence about the organization's desire to be CRM-oriented, the lower the usage rate of CA.

- c. **Top management profile:** Rogers (1983) and Hambrick and Mason (1984) suggest that top managers who have extensive formal education, and demonstrate upward mobility are more likely to pursue innovative practices like the adoption of CA systems. These suggestions lead to the following proposition:

P3: The greater the top managers' educational attainment and upward mobility, the higher the usage rate of CA.

3.1.2 Organizational characteristics

- a. **Corporate culture:** The corporate culture of a firm and the style of its leadership will greatly affect the adoption of a particular business strategy (Christensen, 1997; Deshpande, Farley & Webster 1993; Treacy & Wiersema, 1997). For example, firms that are market-driven rather than technology-driven are conceivably more likely to engage in customer-centric activities, including the use of CA systems. Hence, we hypothesize that:

P4: A corporate culture characterized by market-driven sentiments uses more CA than one that is not.

- b. **Reward system:** A company's reward system affects the attitudes and behaviors of its employees (Hopwood, 1974; Lawler & Rhode, 1976). Webster (1988) argues that if staff members are evaluated primarily on the basis of short-term profitability and sales, they would neglect market factors, such as customer satisfaction, which are important to the long-term profitability and relationship building capacity of an organization. Conversely, companies that reward staff on the basis of market factors may generate a demand for and need the support of CRM structures, including CA systems. The preceding discussion suggests that:

P5: The greater a company's reliance on market-based factors for evaluating and rewarding managers, the higher its usage rate of CA.

- c. **Market orientation:** Guilding and McManus (2002) suggest that traditional accounting practices focus internally on an organization, which is not in keeping with the external, customer focus possessed by market-oriented firms. Market orientation refers to the extent to which companies practice the marketing concept by identifying and satisfying customers' needs through a coordinated effort of various functions in the company (Saxe & Weitz, 1982; Kohli & Jaworski, 1990; Narver & Slater, 1990; Sigauw, Brown & Widing, 1994). Organizations that monitor and are sensitive to customer needs will take active steps to fulfill those needs. Hence, as suggested by Guilding and McManus (2002), CA with its customer focus is expected to have a higher uptake in market-oriented firms, both because of the larger marketing budgets set aside by market-oriented firms to engage in CRM activities such as CA, and because CA is important to guide these market-oriented firms on how to spend their large marketing budgets wisely. This line of reasoning breeds the hypothesis that:

P6: The greater the market orientation of a firm, the higher its usage rate of CA.

3.1.3 Government policies

Public policy can affect the use of CA. There are several potential issues in relationship building activities that may come under government scrutiny (Bloom, Milne & Adler, 1994). For example, strict privacy laws that restrict the collection and use of customer data would conceivably hinder the development and use of CA systems. Finally, there may be pressure against price discrimination that makes it difficult for a firm to charge unprofitable customers higher prices. Hence, we hypothesize that:

P7: The stricter the laws and the stronger the public pressure are (1) supporting privacy protection and (2) against price discrimination, the lower the usage rate of CA.

3.2 Consequences of CA Usage

Relationship building activities would intuitively lead to a stronger focus on key customers, improved service delivery and more strategic coordination of sales activities, all of which are important factors for superior business performance, greater customer satisfaction and more repeat business from customers. The link between service quality and business performance (Buzzell & Gale, 1987; Zeithaml, 2000), and that between service quality and customer satisfaction (Bolton, 1998; Bolton & Drew, 1991; Rust, Zahorik & Keiningham, 1994; Zeithaml, Berry & Parasuraman, 1996) are amply established in the literature.

Hence, we hypothesize that:

P8: The higher the usage rate of CA, (1) the greater the customer satisfaction and (2) the greater the repeat business from customers.

P9: The higher the usage rate of CA, the better a firm's business performance.

P10: Service quality mediates the relationship between the usage rate of CA and business performance.

3.3 Environmental Moderators of CA - Business Performance Linkage

It is interesting to see if the use of CA would always positively affect a firm's business performance. We postulate that there are numerous environmental variables, of which three will be discussed, that may moderate the impact of the use of CA on business performance.

One distinct advantage of CA is that it helps service providers identify the costs and added values associated with customized products and services. Hence, one moderator may be whether or not target customers prefer customized products and services, which are usually more expensive. There are industries in which customers may not mind standardized products. Commodity-type products like paper towels and rubbish bags may well fall into this category. For these types of products, consumers may prefer cheap to personalized goods. On the whole, it seems that personalization only makes sense for products that are linked with emotions, self-concept, self-worth, and self-esteem (Scanlan & McPhail, 2000). That is:

P11: The greater the demand for customization of a product or service, the stronger the relationship between CA usage and business performance.

The degree of competition in an industry should have a tremendous impact on the link between CA and business performance. Drawing on Jaworski and Kohli (1993) and Slater and Narver (1994). Competitive intensity is determined by the number and strengths (e.g., market share) of competitors present, the directness of competition from these competitors (e.g., geographically and in the relatedness of products provided) and the level of use of marketing techniques such as advertising and pricing tactics by competitors, and the amount of resources devoted by them to marketing. In a strongly competitive market environment, an organization must customize its offerings to customers' specific and changing needs and preferences to ensure that customers select its offerings over competing alternatives (Bellis-Jones, 1989; Kohli & Jaworski, 1990; Rolfe 1992; Foster & Gupta, 1994; Kaplan & Norton, 1996). Greater customization of goods and services, and other innovative marketing practices which tend to proliferate in highly competitive environments (Reichheld & Sasser, 1990; Reichheld, 1993; Evans & Berman, 1994), should make CA a more performance-enhancing activity. This is because CA can ensure that the costs of these innovations are invested first and foremost on customers and products with the highest potential to yield more profits as a result. Moreover, as intense competition generally exerts downward pressure on profit margins, CA may become particularly efficacious in boosting profit margins by identifying profitable and unprofitable groups of customers, thereby aiding in the assessment, targeted expansion, and rationalization of the customer base. On the contrary, a monopoly may perform well regardless of whether or not it customizes its offerings to suit changing customer preferences (Houston, 1986), or employs other innovative marketing tactics, or evaluate its customer base. Hence:

P12: The stronger the competition, the stronger the relationship between CA usage and business performance.

In the absence of changes in the competition, competitive pressure is secondarily increased by a weakened economy. The following hypothesis is therefore almost a corollary of the previous one:

P13: The weaker the economy, the stronger the relationship between CA and business performance.

3. Managerial Implications

Our thirteen propositions have important managerial implications. First, CA may or may not be very desirable for a business, depending on many firm level and environmental factors. We believe that though CA is likely to be related to business performance in general, under certain conditions, it may not be critical. CA is useful only if the benefits exceed the cost of the committed resources to build and use the system. For example, under conditions of limited competition, stable and conforming market preferences and booming economies, CA may not be related strongly to business performance. Second, the propositions clearly delineate the factors that can potentially foster or discourage the usage of CA. Some of these factors are controllable by managers and therefore can be adjusted by them to improve the usage of CA in their organizations in situations where CA is beneficial for the organization. For example, we think that senior managers must themselves be convinced of the value of relationship marketing and communicate their commitment to it clearly and consistently for CA endeavors to be successful. Overall, our research propositions promise to give managers a comprehensive view of what CA is, factors that foster or hinder its development in a company, and its likely consequences under various environmental conditions.

Finally, a change in accounting systems may involve redistributions of power, costs, and benefits within an organization. A shift in focus may even entail job losses to some people. Hence, intending practitioners of CA must not only develop positive attitudes toward change and a willingness to adopt a change-oriented philosophy but also possess the capacity to handle the political issues arising from the redistribution of resources and power amongst departments if a successful CA system is to be established.

4. Conclusions

We have attempted to clarify the nature of CA, and identify the antecedents and consequences of CA usage. We have also introduced factors as potential moderators of the impact of CA on business performance. Our thirteen propositions and integrative framework represent efforts to build a foundation for the systematic development of a theory of CA. However, the objective of our research is theory building rather than empirical testing. Much work remains to be done in empirically testing our propositions.

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The progress of Corporate Social Responsibility from a Gender perspective through the Change Management

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Abstract

In recent years, one of the main priorities of companies has been to adapt their business activity and commercial strategy to be aligned with the 17 Sustainable Development Goals (SDGs) established by the United Nations, in its “2030 Agenda”. To overcome this challenge, companies develop and implement Corporate Social Responsibility (CSR) strategies. One of the objectives that have generated the most interest is Goal 5 dedicated to promoting gender equality. This study analyzes the gender equality evolution in companies as part of CSR through Change Management (CM). To do this, a longitudinal study was carried in the last ten years with an analysis of the content of various reports from four of the most important banks in Spain. The results corroborate the growing interest of the largest Spanish financial institutions in gender equality. Being women's access to employment, salary gap information, and the presence of women on the board of directors a priority. Likewise, the CM appears as a lever for the achievement of the SDGs by the entities, gaining relevance in recent years, and being linked to the strategic approach and business objectives for the development of CSR.

Key words

Sustainability; RSC; Gender-Equality; Change-Management; banking.

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1. Introduction

The environment is changing and companies must develop competitive advantages, not only in the economic sphere but also in the social area. In recent years, the social sphere has become increasingly relevant and, currently, one of the organizations' priorities is to adapt operations and strategies to meet the sustainable development goals (SDGs) for the 2030 Agenda, established by the United Nations in 2015. Corporate Social Responsibility (CSR), understood as the commitment that companies have with society, (European Commission, 2011) is the framework through which models, strategies and policies are implemented to achieve these objectives.

SDG number 5 that promotes gender equality has generated the most interest: "Achieve gender equality and empower all women and girls." This goal is crucial because empowering women and girls is proven to help promote growth and sustainable development. Although there are more and more women in the world of work, there are still great inequalities in some regions where they do not have the same labor rights (UN, 2019). There are many studies on the benefits of the presence of women in the company (Velte, 2017), but more longitudinal studies are necessary to understand the relationship between gender diversity and CSR (Rao & Tilt, 2016). The objective of this study is to evaluate the evolution of gender diversity as part of CSR through Change Management (CM) in the last decade of the Spanish financial sector. To this end, a ten-year longitudinal study of sustainability reports and annual reports have been carried out for Santander, BBVA, Bankia and Bankinter, four of the most important banks in Spain. The results show the progress of gender equality in the Spanish banking sector, corroborating the conclusions of the work of Calabrese, Costa, Ghiron, & Menichini (2018).

After this introduction, this study is divided as followed. Section 2 reviews the literature of the three concepts linked: sustainability, gender equality and CM. In Section 3, we describe our methodology and the main results are shown in Section 4. We finish with a discussion and the main conclusions of this study in Section 5 and finally in Section 6 limitations and future propositions.

2. Theoretical framework

Companies have a special interest in applying the SDGs and integrating sustainability to ensure their long-term success (Redman, 2018). The first works on sustainability and profitability reflected that well-managed companies included sustainability as something positive in the sense of good corporate citizens (Rigby & Tager, 2008), but over the years, it has shown that sustainability managed through CSR is a success factor that generates positive impacts on business results

(Porter & Kramer, 2006; Tien & Hung Anh, 2018). Only the very creation of a committee to implement and develop CSR is a mechanism that demonstrates the commitment to sustainable economic development (Hussain, Rigoni, & Orij, 2018), so it already has a value in itself.

Thus, the United Nations decided to give a definitive boost with the summit held in 2015 “Transforming our world: The 2030 Agenda for Sustainable Development”, where established the 17 SDGs. And in which the most conducive framework for its development is CSR (Hauff, 2007). According to ElAlfy, Palaschuk, El-Bassiouny, Wilson, and Weber (2020), the SDGs can promote in a company the development of a strategic CSR, helping in the reduction of risks, in the identification of opportunities, and the search for innovative developments. In their review of the literature on SDG and CSR, they find that it has focused mainly on goals 1 (eradication of poverty), 4 (quality education), 6 (clean water and sanitation), 8 (decent work and economic growth), 12 (responsible consumption) and 17 (alliances to achieve the objectives). Alike, from a socio-economic perspective, through CSR, sustainability objectives can be pursued that increase the value of companies and the trust of their stakeholders. For example, on one hand, contributing to the human rights-oriented SDGs, companies can develop policies that address local (Buhmann, Jonsson & Fisker, 2019) and social needs (Zavyalova, Studenikin, & Starikova, 2018); contribute to the reduction of poverty (Medina-Muñoz & Medina-Muñoz, 2020), promote volunteering among its employees (Mañas-Viniegra, 2018), establish collaborations between the company and social associations (Kelly, 2016), etc.

On the other hand, one of the SDGs of greatest interest is goal 5 on gender equality. The United Nations considers it key to sustainable development due to the benefits derived from companies (UN, 2019). Evidence shows that women are especially sensitive to environmental policies and CSR (Nielsen & Huse, 2010). This translates into improvements in its reputation

The vast majority of the gender equality studies have focused on the composition of the boards of directors (Furlotti, Mazza, Tibiletti, & Triani, 2019; Hillman, 2015; Figueroa-Domecq, Palomo, Flecha-Barrio, & Segovia-Pérez, 2020) or of the organs of power of organizations (Grown, Addison, & Tarp, 2016). It has also been studied in various sectors such as the polluting industry (Wei, et al., 2017), fashion (Miotto & Vilajoana-Alejandre, 2019), medicine (Coe, Wiley, & Bekker, 2019), Education (Hazelkorn, 2018), prestigious business schools (Miotto, Polo López, & Rom Rodríguez, 2019), etc.

In the case of the financial sector, the studies focus on the composition of the boards of directors of international banks such as De Cabo, Gimeno, and Nieto, (2012); Gallego-Álvarez and Pucheta-Martínez, (2020); Birindelli, Dell’Atti, Iannuzzi, and Savioli, (2018). In the case of Spanish banks, between others, we highlight Zurdo, Centeno, Fernández, and Barberis, (2013) research, which analyses the period between 2000 and 2011, and highlights that there is no clear relationship between the economic variables and the proportion of women on boards for that period. And predicts a rather distant evolution until 2045, for overcoming the glass-ceiling and achieve the 40% of women in meetings of boards of directors. Similarly, other authors such as Delgado-Piña, Rodríguez-Ruiz, Rodríguez-Duarte, & Sastre-Castillo, (2020) conclude that female representation on the boards of directors and at different organizational levels may imply a greater promotion of women in leadership positions as well as in the results of employees' productivity.

In this vein, the literature reflects how women contribute to a more sustainable development, but how is their evolution being? In Europe, the female share in middle management and senior positions are growing, and their role in CSR is generating a virtuous circle, although a higher proportion of female CSR managers is not necessarily directly related to the presence of sustainable companies (Calabrese et al., 2018). Spanish women presence in leadership positions is evolving at a good pace, although it is necessary to advance more in senior management positions, increasing higher level of university studies and the employment of recent graduates (Boto-Álvarez & García-Fernández, 2020).

Finally, although gender issues in the company have been extensively studied, there are fewer studies on the implementation of CM on gender equality. Since the 1970s, organizational CM regarding gender equality has limited by conceptualizations of objectives and diagnoses of problems (Benschop & Verloo, 2006). The main problems are the fragmentation of the measures, the superficiality, the incorrect implementation and the fact that they only target women (Acker, 2000; Eriksson-Zetterquist & Renemark, 2016).

3. Methodology

We analyze the Spanish banking sector to study the evolution of gender diversity and the implementation of programs over time through the management of change. Financial sector is attractive to analyze because it has a reference population more homogeneous and also it is one of the main engines that effect achieving a more diverse and inclusive economy (Birindelli et al., 2018).

The methodology conducted is a content analysis of the sustainability reports through a longitudinal study (Baumann-Pauly, Scherer, & Palazzo, (2016); Bono, Arnau, & Vallejo, (2008)). Our sample consists of four of the most important financial institutions in Spain (Torres, Izquierdo, & Olmedo, 2013) Santander, BBVA, Bankia and Bankinter. The sources are the sustainability and annual reports for the years 2010 (Except Bankia 2012) and 2019, retrieved from the corporate websites of the banks, because in recent years companies integrate all their information into those reports. Although they present different formats, titles, lengths and structures, they constitute an adequate source of information (Ilinitich, Soderstrom, & Thomas, 1998; Bonilla-Priego, Font, & Pacheco-Olivares, 2014).

We perform the qualitative and interpretive semantic content analysis from the codification of the texts (Friese, 2011; Olabuénaga, 2012). The categories of the codes were defined and selected taking into consideration the items included in the following sources: “SDG 5”, indicators (UN Global Compact, n.d.); “Gender-related Development Index”, “Development Index and Gender Empowerment Measure” and the “Gender Gap Index” (GGI) prepared by the World Economic Forum (2020). Likewise, the items used in Demetriades (2007), and previous researches on gender equality such as: Dijkstra and Hanmer (2000); Furlotti et al., (2019); Galbreath (2018); and Miotto and Vilajoana-Alejandro (2019). These indicators are the benchmark for measuring and evaluating changes and are usually numbers, facts, opinions, etc. that mark the progress to achieve objectives (Demetriades, 2007).

In addition to CM, we consider the most important categories related to gender equality in the workplace and professional. Specifically, they are the following: "Access to education", "Equal opportunities for professional development", "Women's access to employment", "Wage gap", "Sexual harassment protocol", "Social action for communities of women", "Women's health and working conditions", "Image of women", "Work-life balance" and "Women on boards of directors". In the latter case, this item has been selected instead of "Women in management positions" due to the importance that most of the investigations have given to this topic, such as Birindelli et al., (2018) or Liao, Luo, and Tang, (2015).

We used the CADQAS software Atlas.ti to perform the analysis of the content and systematize the data (Raigada, 2002; Miotto & Vilajoana-Alejandre, 2019).

The first step was encoding the content of the reports in a deductive way, reducing the number of words of the documents and establishing categories, and after do a semantic analysis (Friese, 2011; Olabuénaga, 2012). For this deductive coding, we used keywords explicit in the codes, a priori.

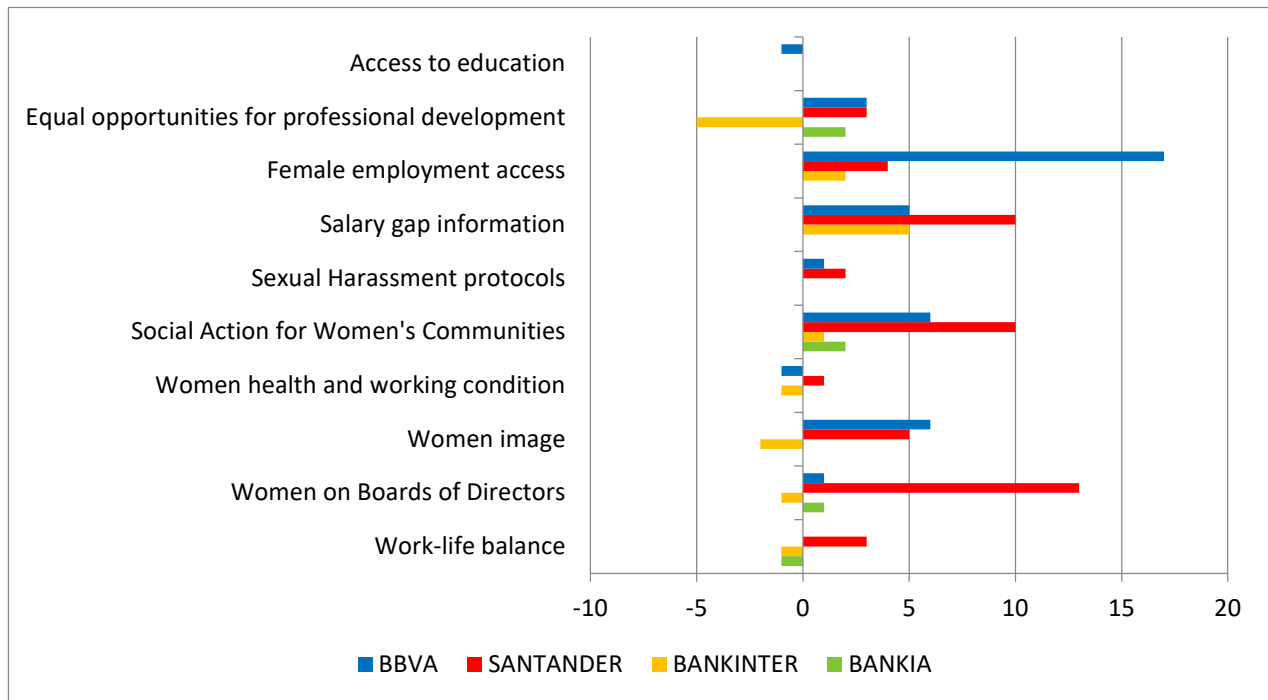
The second step was inductively encoding the content. By reading, we immersed into the semantic texts searching synonymous keywords to avoid missing relevant parts of the text. This is necessary because it depends on the different communication styles of each entity and also, due to the lack of standardization of the descriptors for the designation of the different indicators. To embrace wider options, we considered roots of words that can be designated in different ways in Spanish for example "mujer, femen, materni, directiv, igualdad, diversid etc." Also, in many cases the indicators mean or are included in the same quotations so they were added to both codes. Later, a second author of this study revised the codification. This peer revision avoided the possible high level of subjectivity may appear when using this methodology (Olabuénaga, 2012).

The result variable used is the number of times that each entity, directly or indirectly, mentions a concept or topic related to gender equality or CM in the report.

4. Results

The results are compiled in a code frequency report, show in Tables 1 and 2 for 2010 and 2019 respectively. Also the different absolute values of each indicator between 2010 and 2019 are in Figure 1 and Table 3.

Figure 1

Evolution of Codes from 2010 to 2019 by banks in absolute terms

Source: Own elaboration.

According to the results obtained, the analysis confirms that gender equality and CM are present in the analyzed reports (see Table 4). However, it has a different definition depending on the weight of the indicators and the years analyzed. As shown in Table 3, if we take into account the general results, in the last decade the importance of all the topics together has increased significantly (from 72 mentions in 2010 to 162 in 2019). The importance of each concept has increased practically in a generalized way, except for "access to education" and "women's health and working conditions" that have decreased.

Table 1.

Frequency codes 2010 data

BANKIA (2012)				BANKINTER			SANTANDER			BBVA			TOTALS
Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	ABSOLUTE
1 Access to education	0	0,00%	0,00%	0	0,00%	0,00%	0	0,00%	0,00%	1	100,00%	6,25%	1
2 Equal opportunities for professional development	3	15,00%	37,50%	11	55,00%	31,43%	3	15,00%	23,08%	3	15,00%	18,75%	20
3 Female employment access	1	12,50%	12,50%	6	75,00%	17,14%	1	12,50%	7,69%	0	0,00%	0,00%	8
4 Salary gap information	0	0,00%	0,00%	2	66,67%	5,71%	1	33,33%	7,69%	0	0,00%	0,00%	3
5 Sexual harassment protocols	1	16,67%	12,50%	4	66,67%	11,43%	0	0,00%	0,00%	1	16,67%	6,25%	6
6 Social action for women's communities	1	25,00%	12,50%	0	0,00%	0,00%	3	75,00%	23,08%	0	0,00%	0,00%	4
7 Women health and working condition	0	0,00%	0,00%	2	40,00%	5,71%	0	0,00%	0,00%	3	60,00%	18,75%	5
8 Women image	1	20,00%	12,50%	2	40,00%	5,71%	2	40,00%	15,38%	0	0,00%	0,00%	5
9 Women on boards of directors	0	0,00%	0,00%	2	40,00%	5,71%	0	0,00%	0,00%	3	60,00%	18,75%	5
10 Work-life balance	1	6,67%	12,50%	6	40,00%	17,14%	3	20,00%	23,08%	5	33,33%	31,25%	15
TOTALS	8		100,00%	35		100,00%	13		100,00%	16		100,00%	72

Source: Own elaboration.

Table 2.

Frequency codes 2019 data

BANKIA				BANKINTER			SANTANDER			BBVA			TOTALS
Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	Absolute	Comparison with the other brands	Comparison with the others GE Codes	ABSOLUTE
1 Access to education	0	0,00%	0,00%	0	0,00%	0,00%	0	0,00%	0,00%	0	0,00%	0,00%	0
2 Equal opportunities for professional development	5	21,74%	41,67%	6	26,09%	18,18%	6	26,09%	9,38%	6	26,09%	11,32%	23
3 Female employment access	1	3,23%	8,33%	8	25,81%	24,24%	5	16,13%	7,81%	17	54,84%	32,08%	31
4 Salary gap information	0	0,00%	0,00%	7	30,43%	21,21%	11	47,83%	17,19%	5	21,74%	9,43%	23
5 Sexual harassment protocols	1	11,11%	8,33%	4	44,44%	12,12%	2	22,22%	3,13%	2	22,22%	3,77%	9
6 Social action for women's communities	3	13,04%	25,00%	1	4,35%	3,03%	13	56,52%	20,31%	6	26,09%	11,32%	23
7 Women health and working condition	0	0,00%	0,00%	1	25,00%	3,03%	1	25,00%	1,56%	2	50,00%	3,77%	4
8 Women image	1	7,14%	8,33%	0	0,00%	0,00%	7	50,00%	10,94%	6	42,86%	11,32%	14
9 Women on boards of directors	1	5,26%	8,33%	1	5,26%	3,03%	13	68,42%	20,31%	4	21,05%	7,55%	19
10 Work-life balance	0	0,00%	0,00%	5	31,25%	15,15%	6	37,50%	9,38%	5	31,25%	9,43%	16
TOTALS	12		100,00%	33		100,00%	64		100,00%	53		100,00%	162

Source: Own elaboration.

Table 3

Differences in absolute terms for the frequency codes

	ABSOLUTE 2010	ABSOLUTE 2019	DIFERENCES
Access to education	1	0	-1
Equal opportunities for professional development	20	23	3
Female employment access	8	31	23
Salary gap information	3	23	20
Sexual harassment protocols	6	9	3
Social action for women's communities	4	23	19
Women health and working condition	5	4	-1
Women image	5	14	9
Women on boards of directors	5	19	14
Work-life balance	15	16	1
Totals	72	162	90

Source: Own elaboration.

The most important aspect in 2010 is the “equal opportunities for professional development” followed by “work-life balance”, and the rest of the topics are with much less importance in a generalized way. In 2019, some issues take on much greater prominence, especially “female employment access”, “salary gap” and “social action for women's communities”, followed with less weight by “women on boards of directors” and “women image”. On the contrary, “access to education” that even is not mentioned in the report, nor “women's health and working conditions” and “sexual harassment protocols” are not considered as important.

Taking into account the results of each bank, in 2010 Bankinter is the bank that mentions more often topics related to gender equality, with almost half of the total absolute number of times. Followed by BBVA, Santander, and lastly, by Bankia. On one hand, Bankinter mostly reports information on “equal opportunities for professional development”, “female employment access”, and “work-life balance”, being the last one also the main issue for BBVA. On the other hand, Santander has a more fragmented narrative, reporting mostly information about “equal opportunities for professional development”, “social action for women's communities” and “work-life balance”. Lastly, Bankia, that its main topic is “equal opportunities for professional development.”

In last decade, banks have increased their attention to gender equality with different interests, except Bankinter that reduces 2 times the mentions on the topics. Santander is the firm that most

include gender equality in the 2019 reports, followed by BBVA, Bankinter y Bankia. The main themes for Santander are “salary gap”, “social action for women's communities” and “women on boards of directors”, while BBVA gives special importance to “women's access to employment” or Bankia to “equal opportunities for professional development”, and “social action for women's communities”. Finally, Bankinter shows its interest fragmented into “equal opportunities for professional development”, “female employment access”, “salary gap” and “work-life balance” mainly.

Regarding the analysis carried out on CM in the different reports is included in Table 4. There are 35 interactions between CM and sustainability. But only seven are explicit about gender equality. The table shows that the concept of CM has appeared only in 2019 reports. And it is linked to 5 gender equality indicators seven times in total. There are related to “work-life balance” and “female employment access” that appears two times and once to “salary gap”, “women empowerment” and “equal opportunities for professional development.”

Table 4

Frequency data of the code CM

Indicator of Gender Equality and CM	Absolute Values (2019)
Salary gap	1
Empowerment of Women	1
Work-life balance	2
Female employment access	2
Equal opportunities for professional development	1

Source: Own elaboration.

Finally, the composition of the boards of directors, all banks mention this concept in their reports, and the evolution of the percentage of women included in the boards has grown in all banks. Likewise, the information collected shows that Santander increased 30% of the number of women on their board of directors being in 2010 10% of representation of women, and becoming 40% in 2019. Bankinter is the second bank with more female incorporations into its board, going from 9% to 33.30% in 2019. BBVA increases the number of women achieving 26,67% in 2019 and finally Bankia with an increase of 15,66% of their members on board.

4. Conclusions

Previous studies show evidence that gender equality in companies encourages the implementation of more sustainable and socially responsible policies, contributing so to the achievement of the United Nations SDGs (Galbreath, 2018; Setó-Pamies, 2015). Thus, the importance of gender equality in companies has grown in recent years throughout the world and all sectors. In this preliminary study with four of the most important Spanish banks, there is evidence of an increase in the interest of entities in gender equality. Each entity has its own style, but in most of the topics analyzed they coincide to a greater extent.

In this longitudinal study it is appreciated that a decade ago, the topic that gained prominence in the sustainability reports of the banking entities analyzed was "equal opportunities for the professional development of women", implemented mainly by Bankinter with more than half of absolute mentions, followed with less relevance by "Work-life balance." The situation ten years later gives prominence to "Female employment access" mentioned in its majority by the BBVA report and being the topic that evolves in 2019 as the most increased, followed by "equal opportunities for the professional development", and "salary gap information" being the second topic that gains more relevance in 2019. After that, the latter is followed by the initiatives undertaken to promote social actions for women's communities, implemented mainly by Santander and BBVA.

We highlight that the "salary gap" is a concept that is mentioned in CSR reports mainly linked to women on the board of directors, and which suffers an increase in relevance quite similar to the latter. Similarly, the presence of women on the board of directors is another priority issue in the reports of the four entities, especially for Santander. This concept is driven by the milestone established in Europe from the Directive by the European Commission of November 11, 2012, which proposes the objective of achieving that 40% of the non-executive positions on the boards of listed companies' stock market are occupied by the least represented gender. In this sense, all entities have favoured this measure in their strategies. The evolution in this aspect has been dizzying, reaching the 40% target for Santander in 2019, Bankinter the 33.30%, BBVA reaching a percentage of 26.67%, and 16.66% by Bankia. It will probably trigger a drag effect on the rest of the organization.

The items with the smallest increase in citations in the reports are: sexual harassment protocols, with just three more mentions in 2019 compare to 2010 and women's health and working condition, with fewer mentions in 2019. In these cases, these topics are discussed and developed in other documents, such as conciliation measures, the harassment protocol itself, or the occupational risk prevention plan. In this way, they are topics that are specifically regulated that are internalized in the very structure of the organizations, tending to become normalized to stop being an issue expressly mentioned in the sustainability reports.

Another aspect that decreases in mentions is "access to education", this is a characteristic that is almost not contemplated and it may be because Spain is a developed country where access to education is for the entire population.

Regarding the "women image", we find that gains relevance after a decade. But paradoxically, it does not grow to the same extent as the topic of "women in management boards", which is higher. It can be interpreted as an issue that banks are considering for women to achieve leadership positions, although they are aware that it will be a slower process of change. Now it is a priority to achieve the equality percentage in the management board, as requested by the European Commission.

Finally, we highlight the evolution that the concept of CM undergoes. CM is present in all entities' 2019 reports in a balanced way. It should be mentioned that, in most of the cases, the concept appears linked to the achievement of the sustainability objectives of the "2030 Agenda" in general, but just 7 times from the 35 is explicit to gender equality. For this reason, it is easy to explain why it is not featured in 2010 reports, as the SDGs were set in 2015.

For the most part, CM appears in the texts as an approach to strategy, challenge, objective or initiatives that organizations establish to achieve. Likewise, the reports do not specify how changes have been carried out, such as, for example, the achievement of an increase in women on the boards of directors of both entities.

The primary limitation of this study relates to the limited sample of entities selected for the content analysis. It would be interesting to undertake further empirical studies to increase the sample of the companies analysed. In addition, further research could be focus on a broader range of sectors or even analyze it between different countries. Secondly, another significant limitation identified is the ability to obtain accurate information about change management from the company's perspective. It would be interesting to obtain more information through interviewing those with CSR responsibilities within each of the organizations.

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The Impact of COVID-19 in Social Sustainability: A Fish Value Chain Exploration

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Abstract

The idea of UN Sustainable Development Goals that no one is left behind is gaining higher importance, especially during the pandemic. Despite social sustainability is a complex topic due to the absence of a clear definition and its subjectivity. It relates with existing social problems, where the COVID-19 pandemic has also increased these problems in the food value chain: poor decent working conditions, lack of occupational health and safety at the workplace, forced labor, and intensive hours of work, among others. As half of the world's workforce is involved in the food industry, the better understanding of its associated value chains in times of pandemic can contribute to improve social sustainable practices. With this aim the current paper identifies and analyzes current challenges and problems linked to social sustainability in times of COVID-19, identifying key actors and potential solutions and recommendations. The research adopts a qualitative and exploratory method applied through the Grounded Theory analysis combining desk research with inputs from a multi-stakeholder consultation of 35 fishery experts from all over the world. The paper provides new insights and shared experiences about social sustainability in the fish value chain to overcome the crisis times we are living in.

Key words

Social Sustainability, Fish Industry, Value Chain, Sustainable Development Goals, Qualitative Analysis

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1. Introduction

Although the United Nations (UN) included the three pillars of sustainability (environment, economy, and society) in its activities and agenda, it was not officially reflected until 2017 through the UN Sustainable Development Goals (SDG). Among other objectives, the 2030 Agenda aims at ending all forms of poverty, fighting inequalities and addressing climate change, but at the same time ensuring that no one is left behind (UN, 2015). Those issues relate to social sustainability, as one of the three pillars of the sustainable development (Brundtland, 1987), and they are suffering a considerable stress in this pandemic times with a direct influence on people.

In the supply chain management, sustainability is an emerging concept usually defined by a focal company that establishes the sustainable practices to be adopted in the whole chain (Seuring & Muller, 2008; Kareiva, McNally, McCormick, Miller, & Ruckelshaus, 2015). But the sustainability commonly focused on environment and economic issues (Zhu & Sarkis, 2007; Vachon & Klassen, 2008; Green, Zelbst, Bhaduria, & Meacham, 2012; Zhu, Sarkis & Lai, 2013), keeping social sustainability in the shadow (Mani & Gunasekaran, 2018; Whitelock, 2019). The underlying reason is the lack of clarity in its definition and its subjectivity, making it the least explicit pillar of sustainability (Toussaint, Cabanelas & Blanco-Gonzalez, 2020). However, the inter-linkage among the three pillars is central (Carter & Easton, 2011), particularly in this period of contingency, a time where persons in the upper steps of the value chain are the most affected.

Particularly, the concept of social sustainability in the food industry is quite novel due to the lack of studies analyzing it (Sancha, Gimenez & Sierra, 2016; Whitelock, 2019; Toussaint, Cabanelas & Gonzalez-Alvarado, 2021). Although there are few analyses on sustainable initiatives across all levels of the food industry, from the agricultural sector to the distribution industry (Soysal, Bloemhof-Ruwaard, Meuwissen, & van der Vorst, 2012; Beske, Land & Seuring, 2014; Fredriksson & Liljestrang, 2015; Soto-Silva, Nadal-Roig, Gonzalez-Araya & Pla-Aragones, 2016), they do not provide a holistic approach of social sustainability in the food value chain.

Specifically, this paper analyses the effects of COVID-19 pandemic in the social sustainability of an important industry of the food value chain, as fisheries are, to better understand current problems and challenges. It is not a minor issue as this activity, jointly with agriculture, employs half of the world's labor force and it is considered by ILO (2020) as one of the three most hazardous industries along with the construction and mining sectors in terms of fatalities, injuries and work-related ill-health. Problems, such as poor decent working conditions, lack of occupational health and safety at the workplace, forced labour, and intensive hours of work, among others, usually occur

throughout the fish value chain (ILO, 2017) and they were aggravated due to current circumstances.

Due to the complexity and novelty of social sustainability in the Fish Value Chain (FIVC), the research adopts a qualitative and exploratory method applied through the Grounded Theory (GT) analysis (Johnson, 2015; Minten, Tamru, Engida & Kuma, 2016). This approach helps at identifying core concepts, descriptions and relationships among different categories to gain a better understanding of social sustainability in order to identifying social problems, involved actors and proposing potential solutions. Specifically, this research combines a desk research with inputs from a multi-stakeholder consultation of 35 fishery experts from different levels in the value chain all over the world.

Therefore, the structure of this paper is as follows. The second section reviews existing literature and includes core concepts to better understand the topic. The third section details the methodology, which provides an explanation of the recaptured approach. Then, the findings are presented and described, where it includes a discussion about the results obtained. Lastly, the paper ends with conclusions integrating the main theoretical and practical implications, and also limitations and further directions of study.

2. Literature Review

Sustainability, as an emerging concept in the food supply chain (Genovese, Acquaye, Figueroa & Koh, 2017), includes different initiatives: prevention of food waste by the consumers' behaviors, proactive strategies to enhance sustainable performance, strengthening national safety control systems and the transformation of the food system to increase the farmers' income (Glover, Champion, Daniels & Dainty, 2014; Zhu et al., 2018). Particularly, researchers have made important efforts to measure performance in the supply chain encompassing financial and non-financial measures in the triple bottom line (Van der Vorst, 2006), and multidimensional approaches incorporating production and distribution costs, profits, inventory and ROI (Aramyan et al., 2007). Those efforts also resulted in scorecards (Bigliardi and Bottani, 2010) and specific frameworks considering quality, safety, sustainability and efficiency (Manzini and Accorsi, 2013). However, those approaches under-represented the social dimension in the supply chain due to its complexity to quantify social factors and embed them in a mathematical framework (Eskandarpour et al. 2015).

This situation is particularly relevant nowadays, as many food products are traded worldwide through value chains because of globalization. It means a strong vertical coordination among different firms with a high synchronization in successive stages (Swinnen & Maertens, 2007). It means information exchange by providing inputs and technical support, through rigorous contracts (Goodhue, 2011). But it also causes a more difficult control over each actor involved, making problems and culprits more difficult to identify.

Previous studies on vertical coordination in the food value chain have been highly influenced by supply chain management (SCM) research (Scholten & Schilder, 2015). On one hand, the SCM approach has the focus on the optimization of the supply chain of the focal company by increasing its competitiveness while reducing its costs. And on the other, the value chain analysis takes a

broader perspective by including all actors involved throughout the value chain, from producers and communities to retailers, wholesalers and consumers, and from an economic and social approaches and are more unusual (Gereffi & Lee, 2016; Toussaint et al., 2020). Thus, the value chain approach provides a holistic and more complete analysis by including all relevant aspects and elements of the food value chains (Toussaint & al., 2021). It is particularly important in times of crisis, particularly on health crisis, as the persons should stay in first place in managerial decision taking (Mora-Cortez & Jonhson, 2020), particularly those vulnerable people in value chains.

In this regard, fish, as one of the most traded food commodities worldwide, with millions of people depending on fisheries as a source of jobs, income and livelihoods (FAO, 2020), plays a central exposition to this crisis; particularly due to its exposition to the lowest stages of the value chain (fish extraction). FAO (2020) estimates that 59.5 million people are directly engaged in the primary sector of capture fisheries and aquaculture in 2018. Social sustainability in FIVCs, including aquaculture, has become a major focus of work in the international community and the key stakeholders direct or indirectly involved in it. Despite there are efforts trying to tackle social problems in FIVC, there is still much to do. All over the world, human and labour rights violations and abuses in the sector have been documented, where unacceptable practices are still taking place, not only in developing countries but also in the developed world (FAO, 2020). Also, human trafficking, forced labour and other labour abuses onboard fishing vessels are strongly associated with illegal, unreported and unregulated (IUU) fishing, mainly involving migrant workers (FAO, 2020). Social protection is a key to address fishers' specific vulnerabilities and risks with an important impact in situation of crisis. However, as other rural poor, fishers are often neglected by national social protection policies and programs (FAO, 2020).

Therefore, it is essential to advance towards a central recognition of social sustainability in FIVC, and how to deal with COVID-19 crisis. It is a required input to achieving SDGs within the national and international legal frameworks, but also by promoting a socially responsible along the FIVC (Teh et al., 2019).

3. Methodology

3.1 Data approach and data collection

This paper intends at better understanding the current challenges of social sustainability in the FIVC and in times of pandemic. Through a qualitative approach with exploratory purposes as the new phenomena, this research intends to identify social problems, key actors and potential solutions to address social sustainability in times of COVID-19. Additionally, it integrates a broader perspective focusing on the entire value chain analysis, including the economic and social impact (Gereffi & Lee, 2016; Toussaint et al., 2020). This approach is particularly useful for several reasons. First, the nature of the topic is difficult to quantify (Mani & Gunasekaran, 2018). Second, the complexity of social issues is complex to measure in comparison to economic and environmental ones (McKenzie, 2004). Third, the lack of terminology and studies on social issues and the necessity to gain new insights in pandemic times (Gopal & Thakkar, 2016). Thus, the analysis of a specific industry of food value chain let shed light on the phenomena.

Accordingly, this study uses the GT as a common method for the empirical analysis in social sciences (Johnson, 2015) as it lets generate new theoretical propositions from data (Strauss, 1987; Charmaz, 2001: 245). Following the three basic elements of GT: concepts, categories and propositions (Corbin & Strauss, 1990: 7). With this aim, the data collection was obtained through a 6-day consultation with multiple stakeholders in September 2020. During the consultation, 35 fishery experts were able to share their knowledge and experiences about social sustainability in the FIVC. The sample was crucial for this analysis, where experts were selected according to their work and activities, their participation in different stages of the FIVC, location and type of entity/organization. This helped to achieve relevant data to cover the different stages of the FIVC, global approach and from different perspectives (i.e., industry, policymakers, NGOs, international organizations, academia, among others). Appendix I provides more information about the sample, and Appendix II about the questions raised to obtain precise reflections on experts.

3.2 Data analysis

As the multi-stakeholder consultation was recorded on Zoom® platform, the analysis of the data was evaluated thanks to the recordings and transcriptions of each session provided by the platform. In order to facilitate the analysis, the qualitative software Atlas.ti® was used for data analysis. For the analysis, the videos were uploaded in the software with the transcription of each session. Once uploaded, each video together with transcriptions was analyzed in-depth with the aim to find common patterns based on data. Memos were used in order to facilitate the analysis by making relevant annotations of each session. The analysis concludes with the exhibition of the results through an extensive narrative (Johnson, 2015).

4. Findings

This section provides the main outcomes and new insight about the case study on social sustainability along the FIVC. It is divided into six sub-headings, which represents each stage.

4.1 Small-Scale Fisheries (SSF)

Vulnerable groups and communities, such as women, primary small producers and individual fishermen, those included in the first steps of the value chain, were the most affected and strongly impacted by the pandemic situation. There has been a widespread reduction in family and community incomes. Women are marginalized and vulnerable on multiple counts, where half of the women working in SSF, and sometimes even less, are organized in trade unions or cooperatives. Women face difficulties when accessing to information and resources. However, before the COVID-19 outbreak the situation of women was improving due to different projects being performed and, in some cases, implemented by NGOs and international organizations.

Many fish workers find themselves in a critical family situation. This is because the family income has been severely affected as other family members of the household have lost their jobs. Therefore, many fishermen went fishing as a necessity to survive due to the blockade of fish products commercialization, causing the reduction of their incomes. The difficulty of fishermen to

access to financial aids or support from the national government. During the COVID-19 pandemic, some countries have not given any sort of support in the fisheries sector nor aquaculture to overcome the challenges of the situation. Nevertheless, other countries, including some developing countries, have given a bonus to fishermen and fish farmers that contributed to deal with the economic shortcomings caused by the pandemic.

Before COVID-19, the situation of working conditions for small fish workers (SFW) and fishermen was complex, and still is. This is mainly due to the fact of the high level of informality in the sector. Thus, formalization of the sector is needed, as this will allow fishermen and fish workers (FFW) accessing to social protection. Social protection is a right that all workers are entitled to have, not an option. Particularly, FFW do not have access to healthcare services or social security. These problems come from the lack of formalization. In some areas, the access to healthcare services is limited or even absent, where FFW may be placed at a great risk and including the scarcity of medical supply availability. Seasonality of the work is still a problem if the sector is not formalized. As a consequence, lower incomes and irregular work, without any sort of protection, lead to risky behavior and unsustainable practices if the professionalism in the industry is not achieved.

Climate change is key. Coastal communities are greatly affected by climate change and its importance is not diminished due to the advent of COVID-19. The early stages of the pandemic coincided with disastrous cyclones, putting great pressure on coastal communities from multiple directions. This generated that the loss of employment dependent on tourism and export jobs increased. In turn, this left many FFW without formal jobs and caused many other into informal ones, having to migrate back to coastal communities.

With the dramatic fall of restaurant and catering activities made that fish purchases at supermarkets increased due to the importance of fish and fishery products in local food. FIVC have become shorter focusing on the regional level with higher domestic demand. This allowed the continuity of artisan and small-scale fishermen's activities.

However, many other small fishers rely on international trade for their livelihoods, where COVID-19 has had a great impact. Associativity plays a key role in communicating the SSF's needs to governments. It has played an important part during the COVID-19 pandemic to survive and overcome the situation, but also to coordinate fishermen's activities. It also allows fishermen to have access to marine resources, especially artisanal and small-scale fisheries. This associativity and connectivity are needed but it must be fair. Moreover, the women's role is gaining importance in this sort of associativity; women are getting involved in the development and management of cooperatives to improve their working conditions and access to markets.

Decision-making should be bottom up to ensure that positive social and environmental outcomes are achieved. Transparent intervention is needed. Policy should seek to strengthen alternative incomes, food security and the wellbeing of family, especially for marginalized groups. When developing policies, policymakers should consider the vulnerability of different groups. Furthermore, the importance of communication should be consolidated among various stakeholders, where social dialogues should involve workers to tackle their concerns and problems, an approach that should be deployed throughout the whole value chain. Furthermore, there is a need of updating the national fishing legislation to support sustainable fisheries and to boost the

sector to implement those updated policies, especially those non-organized. Formal guidelines should be translated into simple tools that may be effectively implemented at the community level.

Subsequently,

P1. Policies should be deployed from the bottom up due to the particularities of vulnerable segments, namely women, small fishermen and fishing communities. Although many people depend on fisheries, the informality of the industry make it difficult to deal with pandemics, and policymakers should facilitate the understanding of international, regional and national tools and laws and provide technical support to actors in SSF.

4.2 Industrial Fisheries

Public health, crew welfare and observer safety must all be priorities, particularly in pandemic circumstances. Generally, high seas fisheries are manned by foreign and migrant workers, who have left their country, originally in a temporary basis. However, the return to their country is often disrupted, which creates family hardship and lower incomes. Moreover, the prevalence of illegal workers means there is a sizeable part of the population who are unable to access healthcare services.

Furthermore, governments should be flexible in allowing travels for specific groups, such as fishermen in exceptional situation. For example, during COVID-19 circumstances it was extremely difficult for fishermen and crew members due to the expiration date of their certificates and visas. Of course, it is important to guarantee mobility in appropriate conditions of health but considering the special need of this people for travelling back home. Indeed, crew movement and changes are essential for fisheries, where disruption creates difficulties for the industry.

Shorter value chains come with positive and negative implications. Producers are often able to maintain a greater proportion of the final sale of product than longer chains, with a lower environmental impact from production sources such as transport. Alternatively, the value of the final product maybe reduced when compared to price on the international market. Complementary value chains are necessary, which includes the improvement of post-harvest practices and directly marketing to consumers to promote responsible consumption.

In terms of fish and fish products and trade, the demand and supply elements were negatively affected and there has been a shift in production passing from fresh products to longer shelf-life fish and fish products. The role of fish and fish product traceability plays a key role, where its promotion must have organizational and educative elements. Traceability should be transparent along the FIVC. This will allow the sector to be more transparent by knowing the origin of the fish and consequently the identification of the actor undertaking unsustainable practices will be easier. In addition, companies throughout the value chain must demand it due to the importance of digital tools in building strong systems of management. This will facilitate to monitor and to better mitigate climate change and future crises. With this aim collaboration is key to improve traceability systems and the promotion of responsible fish and fishery products by all stakeholders, particularly by those focal firms. But also, collaboration with unions, international organizations, governments and other relevant stakeholders is very important to ensure and facilitate crew changes.

Moreover, there has been a reduced demand for maritime internships and apprenticeships. Practical experience is an essential point of entry for workers, therefore without new workers the future of the industry can be blurred. There is a need to encourage maritime internships in close collaboration between maritime and navy schools and national government to promote this job for workers to incorporate in the job with the maximum expertise possible. Summarizing, the proposal is as follows:

P2. Most of the industrial fisheries are involved or managed by foreign workers, where migrant people are more vulnerable including IUU fishing practices. Crew members are exposed to unsafety situations, but also situations of human trafficking, forced labour and other labour abuses on board fishing vessels are usually linked to IUU fishing. Crew protection through the implementation of international standards into national law is advisable. Cooperation among key stakeholders is key for the proper implementation and technical guidance of those actions.

4.3 Aquaculture Production

Aquaculture is also reliant on foreign workers. Social problems in small farmers are normally faced by the family business. Thus, social and environmental responsibilities are at the forefront of business, where the support and strengthen of the relationships with community are essential. It is therefore important to consider the experiences of all participants inside but also outside of the firm to enhance and ensure good practices. Specifically, when aquaculture can have diversified products, a high and continuous control is required, and the commitment of skilled workers is central. This represents an important investment for small fish farmers and producers, and they should manage in parallel the multiple perspectives mentioned.

Again, restricted channels with the outside world have led to a lack of inputs for aquaculture. With the closure of services, mainly food services such as restaurants, sales declined dramatically almost to zero. Companies' incomes have been reduced since the COVID-19 outbreak, which could pose a danger for small companies due to is reductions in their earnings. Since the pandemic, aquaculture, in particular small fish producers, have not received any type of support by the government. However, many fish farmers were forced to take out a loan or a credit bank to overcome the situation, in this way they could continue their activities but with lower earnings and workers could receive their salaries.

Collaboration in the aquaculture sector is a need to access into new markets and improve the decision-making at a community and sectoral levels. The creation of cooperatives among small fish producers may help to overcome problems, such as production costs and other expenses. The need to develop or enhance strategic business alliances between small fish producers and bigger companies that could facilitate activities along the FIVC, such as logistics, consumption, marketing, among other. The suggested commitment with communities surely has helped to better overcome this situation of pandemic.

There should be more attention to this industry, as the pressure on natural environment and fixing of population in rural areas are positive, and also more communication campaigns not only for big companies but explaining the importance of small companies and communities are advisable. This

is because the decision-making should be from the bottom to the top to ensure positive social and environmental outcomes in the sector. Those focal companies that can understand it can gain an advantage that can go beyond the value chain but can also reach distribution and, if properly managed, consumers. Therefore,

P3. Aquaculture farms are normally owned by small producers. With the COVID-19 outbreak, financial issues become a problem due to the fall in global demand. Communication and the search of new alliances were key to enter new markets.

4.4 Processing

Before the pandemic, in some countries labor standards were well supported by the national law, where efforts to promote the role of women in fisheries were being undertaken. However, it is necessary more protection for those exposed and vulnerable workers at the processing stage, particularly women. At this stage, women's work is underrepresented and undervalued. Formalization is key to recognize the role of women. In addition, a significant proportion of women involved in post-harvest activities have been affected by COVID-19 in a higher extent than men. Therefore, cooperation is essential to ensure social outcomes, specifically the importance of women's activities in this industry.

Therefore, a greater focus must be placed on workers at the processing stage of the value chain. Again, transparency is essential for workers to engage in the company vision. Therefore, companies must strive to improve workers' livelihoods as well as community engagement.

However, there are some fish actors within the sector facing more problems and challenges than others, especially small entrepreneurs. Micro and SMEs usually are family business, where social problems are related to lower incomes, longer working hours and invisibility of their efforts on responsible and sustainable practices. Access to information and digitalization is still a problem for SMEs to access new markets and expand their business activities. All fish actors involved in the FIVC must work together to ensure the continuity of their work activities.

The respect for all stakeholders and participants in the FIVC starts by accomplishing the standards and policies established. And, in this way, all actors along the value chain are essential, and decision-making should be made in joint-basis. Better harmonization of data standards both horizontally and vertically facilitate monitoring and controlling the whole industry. Thus, a better integration of technology and the increase of observation levels are mandatory throughout the value chain.

Despite disruption to data collection which have affected fisheries with official oversight, private certifications have continued to certify fisheries with no change. As there is little to no external oversight, it is hard to say that these assurances are entirely reliable. This schema should be reflected and updated to new systems and data availability through internationally defined standards with an adaptation to local life.

The industry should make more "umbrella" campaigns to promote fish and fishery products consumption, because every actor will be profited. Now, with the consequence of COVID-19 this promotion is more necessary as it benefits the entire FIVC, provides direct incomes and benefits the consumer. A key element to increase fish consumption is the awareness of fish and fish

products benefits on health. Thus, this could help to the recovery of the industry in times of an extremely difficult situation of human-beings health.

P4. A greater focus on fish workers at the processing stage of the FIVC should be made. Women work should gain more awareness, visibility, and access to social protection, loans and financial support. Companies should be engaged with the workers' welfare and with the local community. Also, companies and relevant stakeholders should seek to improve their collaboration to enhance traceability and try to work together on the promotion of fish and fish productions.

4.5 Distribution

The pandemic has caused a shift in storage and logistics. For example, courier services are no longer available as before the pandemic. In an international outlook, this has led to market access issues and limitations by requiring specific physical documentation for import. For fish and fish products, the reduction in commercial flights has severely hit the low-volume high value exports that relied on them to reach markets. Additionally, the limitations to frozen products have affected this business (e.g., China authorities on the transmission of COVID-19 through frozen products).

As food is essential worldwide, different ways were found to continue operating that means different routes or logistics that allowed them to enter the market or even new markets. As movements of goods and workers were restricted, the companies had to perform extraordinary coordination for transporting protective gear and logistics. Moreover, distributors who supplied restaurants were greatly affected because of the closure of restaurants and the decline of global tourism. Therefore, this situation has also changed the ways of buying. Online demand has become very popular, and logistics and distribution start playing a key role to satisfy demand. However, logistics have been limited due to the restrictive measure of COVID-19 and the decrease in workforce.

It is important to manage fisheries activities continuity in order to be able to supply fish and fish products. Also, the compliance of safety protocols to ensure workers' health during the transport activities are needed. Consequently,

P5. Due to the difficulties of the COVID-19 pandemic, distribution of fish and fish products were negatively affected making the workforce to shrink. Despite this stage is not directly connected with fisheries, it is indeed part of the whole FIVC and key to distribute fish and fish products, where many people depend direct or indirectly on the Fisheries and Aquaculture Sector (FAS).

4.6 Retailing and Wholesale

There have been disruptions for all actors along the FIVC, where some have felt it more acutely than others. For those supplying the international and foodservice markets, the economic loss has been particularly severe since the pandemic. Also, producers supplying the foodservice sector were severely affected, with the subsequent impact on employment. There is a great concern in the foodservice companies. The economic problem due to the COVID-19 has caused a fall in hospitality

affecting food prices and services, which has directly caused lower employment. The pandemic has changed the consumption habits in families. This has increased fish consumption at home instead of restaurants and other options, where many people involved in the FIVC have lost their jobs.

In addition, micro-SMEs are facing difficulties due to the limitation on access to information, digitalization, visibility and financial resources. There are SMEs doing things properly regarding their employees and making social sustainable practices, however the acknowledge of those good practices is scarce. Promotion and marketing in various forms is beneficial for the industry. Furthermore, the capacity to communicate the traceability of a product to the end consumer is key in these days, but it is still a challenge.

The importance of fish promotion through collaboration and cooperation among actors along the FIVC, looking for the cooperation of distribution with different types of advantages from institutions should be considered. The sector alliances can facilitate the reintroduction and encouragement of fish consumption in households. Thus, these alliances together with technology can reach a wider dissemination of those campaigns and promotions. Institutions need to recognize the role of fish workers and SMEs struggling against the COVID-19 implications. The lack of coordination limits this focus, where public administration should create measures not only sanitary measures but also to overcome the economic crisis that is affecting the sector, but workforce and SMEs. Subsequently, the next proposal is suggested as follows:

P6. With the arrival of the pandemic, many companies in the food industry, particularly foodservices SMES, were punished. Restaurants and other companies depending on fish and fish products, mainly in touristic areas, had to close their activities causing the dismissal of many people. Moreover, consumption patterns changed from eating and dining outside to cooking at home. Therefore, the promotion of fish and fish consumption can rise the demand and, consequently, increase the workforce in the FAS.

5. Findings and conclusions

The analysis of the FIVC shows that social issues are still part of situation where the lack of enforceability is one of the key elements. Throughout this research, new insights and recommendations are included to overcome social problems worthy to improve social sustainability practices into the FVCs.

Firstly, with the COVID-19 outbreak, the overall demand for fish and fish products has declined, creating difficulties for suppliers throughout the entire value chain, from production and processing to distribution and marketing. Demand has contracted in key markets and transportation and distribution have become more complex. The challenge now is to develop new markets, where the value proposition (through product development and new income streams) will be key in the industry recovery. Smaller enterprises have been most acutely affected, leading to critical losses of livelihoods for fish workers and their dependents. It creates challenging situations for those people related to the industry and the higher commitment with the community could help overcoming this situation.

Secondly, a key recommendation is to seek collaboration and cooperation from all actors involved in the FIVC. The establishment of associations or formalized networks of fish workers is key to improving working conditions and strengthening related benefits, especially for women. The role of women in fisheries in general must also be better recognized along the fish value chain due to their influence in all steps of the value chain. This organization can improve the empowerment of people to deal with any kind of crisis, including those related with health.

Thirdly, the formalization of the industry is needed. Illegal fishing is still a big social concern in fisheries. The informality of the sector undertakes men and women to go fishing without a proper equipment or gear, where in many cases these situations end up in tragedies. In the industrial fishing, particularly onboard, illegal fishing is usually related to forced labor and indecent work, this causes unfair competition which difficulties the development of the sector. Unfortunately, in some cases enforcing national and international regulations implies a significant economic cost, fact that does not relief illegal fishing. Thus, the discouragement of buying illegal fish will influence fishermen who fish illegal fish to stop making unsustainable practices along with the formalization of their work. Moreover, formalizing will also allow the access rights to resources, tenure or to means of production in the sector is also important for recognizing and implementing better working conditions, especially for vulnerable categories, i.e., migrant workers, women, indigenous groups and fishing communities. It will also favor the adoption of measures to mitigate the expansion of COVID-19 among workers, as the lack of any control cannot warrant it.

Lastly, all this has resulted in increased social problems and growth in unemployment numbers, with many having lost their only source of income - even before the pandemic, social issues were already a big concern in the fisheries and aquaculture sector. Therefore, the creation and adoption of guidance, best practice and standards to address social issues is key, and the process should be undertaken with the participation of the industry and any other actor involved in the fish value chain. This includes application and implementation in the FAS of relevant standards and ILO Conventions that deal with production and processing in agriculture or food production. Companies should seek to go beyond national requirements to implement within the company, better sustainable practices, including on social aspects. Focal firms should lead it and should be object of a high monitoring to accomplish their commitment with sustainability in all its three pillars.

6. Appendix

6.1 Appendix I – List of participants

MODERATORS

Job Position	Organization
Buyer Engagement Director	SFP
Chair of the Scientific Advisory Group	WECAFC
Legal Officer	UNCTAD
President	LDAC
Secretary General	AIPCE-CEP
Sector Lead, Responsible Agricultural Supply Chains	OECD Centre for Responsible Business conduct

Source: Own elaboration.

SESSION 1

Job Position	Organization
CEO	Nemi Natura
Secretary of Labour Rights	PFA
Director	Fundación Cocinamar
Managing Director	OPAGAC
CEO	Aquagrow International
Director	Fisheries, Aquaculture and Marine Ecosystems (FAME)
President	Association of Continuity of Generations
Founder and President	Intermareal
Responsible Markets Manager	Fundación MarViva

Source: Own elaboration.

SESSION 2

Job Position	Organization
General Manager	Austral Group
Senior Fishery Consultant	Independent
VP Product Integrity	Ahold Delhaize
Director	FENIP
Director	FEDEPESCA
Director	Grotius Consulting
Co-CEO	Pacifico Aquaculture
Executive Director	National Chamber of Aquaculture (Ecuador)

Source: Own elaboration.

SESSION 3

Job Position	Organization
Engineer	GIPP
Associate Professor	National Autonomous University of Mexico (UNAM)
Chair of the Scientific Advisory Group	WECAFC
Executive Director	CeDePesca
Manager Action Platform for Sustainable Business	UN Global Compact
President	Europêche
Fisheries Development Officer	Pacific Island Fisheries Forum Agency
Director	INFOFISH
Senior Adviser	The Danish Institute of Human Rights

Source: Own elaboration.

6.2 Appendix II – Questions for participants

- What have been the major social issues that you have had to deal with during the pandemic?
- Before COVID-19, what was your work situation like, were you facing social problems or general problems that could affect the social part of the sector (if so, could you define what those problems were), were you working towards social responsibility?
- And to conclude, could you share how you are managing this situation, particularly social issues (workers, employees).
- Currently, what is the status of the FAS in terms of social issues?
- What could be done to help the industry, particularly SMEs, to face the social problems that the sector is experiencing?
- What do you think the long-term implications are for social issues in fisheries and help in the current situation and in the future?

- And finally, could you give some recommendations to all actors along the fish value chain on how to improve and ensure social responsibility in the sector.

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The effects of business accelerators in new ventures' dynamic capabilities

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Abstract

Business accelerators provide entrepreneurs with a combination of capital and specific support resources to help them grow rapidly and scale their business idea. Despite their rapid emergence as key role players in the entrepreneurial ecosystem, research is still scant about their impact in new ventures development. This paper examines the effects of business accelerators based on the achievement of positive results from the dynamic capabilities perspective. Specifically, a qualitative and descriptive approach of Y Combinator's business accelerator methodology has been applied. The analysis shows how Y Combinator contributes to the generation of dynamic capabilities in companies through the implementation of specific actions and resources embedded in its business acceleration program. Findings reveal that business accelerator stimulates dynamic capabilities of portfolio firms. It can help them to gain competitive advantage and superior performance in the market compared to companies that do not participate in an acceleration program.

Key words

Dynamic capabilities; business accelerator; startups; new venture creation; business incubation

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1. Introduction

Young innovative firms are essential to any economy as they are key drivers of economic development, job creation, innovation and productivity growth (Block, Colombo, Cumming, & Vismara, 2018; Isenberg, 2010). They are core to the process of creative destruction; they exert competitive pressure on current businesses by renovating markets and driving improvements in productivity and prosperity (Clarysse, Wright, & Hove, 2015).

Despite these positive effects, they face several constraints (Battistella, De Toni, & Pessot, 2017) such as limited routines, resources and legitimacy (Alexander, Johan, & Jeremy, 2007) which limit their growth and threaten their survival (Liao, Kickul, & Ma, 2009). The development of dynamic capabilities is key for overcoming such limitations (Baker & Nelson, 2005; Paradkar, Knight, & Hansen, 2015). This is especially true for startups as they face dynamic business environments (Liao et al., 2009). Zahra et al. (2006) suggest that new firms should use dynamic capabilities to maximize their goals. Macpherson et al. (2004) distinguish dynamic capabilities as a crucial antecedent to innovation and growth in a new, small and rapidly growing technology-based firm. Therefore, the dynamic capabilities (Teece et al., 1997) offer a valuable perspective by which to analyze a new firm formation process (Newbert, 2005).

There are a small number of studies that have examined the dynamic capabilities in emerging ventures (Alexander et al., 2007; Baker & Nelson, 2005; Corner & Wu, 2012; Jones, Macpherso & Jayawarna, 2014; Paradkar et al., 2015; Salunke, Weerawardena, & Mccoll-kennedy, 2011). This is in line with recent calls for more research on the dynamic capabilities in new ventures and in the processes whereby these important capabilities are generated (Newbert, 2005; Zahra et al., 2006).

In this paper, the term startups interchangeably with new ventures is used and these are defined as "organizations established in an uncertain and volatile environment with the intent to bring a new opportunity to the marketplace" (Hoffman & Radojevich-kelley, 2012:54).

The development of dynamic capabilities implies accessing the necessary knowledge and information to achieve the entrepreneur's goals (Jones, Macpherson, & Jayawarna, 2013). Also, most young firms are particularly dependent on external resources because of their relatively limited organizational and technological resources. These firms present a lopsided knowledge base, few capabilities and a limited capacity to develop them (Debrulle, 2012). This means that new firms will need to search both outside and inside the firm's boundaries for knowledge,

resources and capabilities, which they must acquire, appropriate and integrate into the venture (Jones et al., 2013).

In this regard, both business incubators and accelerators have been acknowledged by policymakers, private investors, corporations, as well academics, as effective ways to support the creation of new firms and deal with their needs in their early stages (Pauwels, Clarysse, Wright, & Van Hove, 2016; Yang, Kher, & Lyons, 2018). In spite of the relatively long tradition of business incubators around the world, they have been criticized over the years for the little or no effect of incubation on the success of firms (Scillitoe & Chakrabarti, 2010), for their lack of clear selection criteria and exit policies and their reliance on public funding in order to be sustainable (Bruneel, Ratinho, Clarysse, & Groen, 2012b). On the other hand, given the extensive research on incubators (Bergek & Norman, 2008; Dilts & Hackett, 2004), there is limited literature on accelerators (Pauwels et al., 2016)

Recent empirical studies have reported evidence on the positive effect of accelerators on venture development (Battistella et al., 2017; Fedher & Hochberg, 2014; Smith, Hannigan, & Gasiorowski, 2017), but there is a big variance between what particular practices or structures facilitate these effects and no consensus has been reached regarding this matter (Hallen, Cohen, & Bingham, 2016). In fact, as Smith and Hannigan (2015:2) affirm: “scholars understand relatively little about how accelerators might shape the trajectories of new startups”.

We define business accelerators as coordination mechanisms which provide startups distinct services guided by a specific methodology that can help them generate dynamic capabilities and gain competitive advantages and a superior market performance compared to companies that do not participate in an accelerator program.

Thus, our research aims to further investigate the lack of understanding in the process of generating dynamic capabilities within new ventures and in the effects of business accelerators in startups by addressing the following research question: To what extent do business accelerator programs influence the development of dynamic capabilities of the startups they impulse?

For this purpose, the practices and tools of Y Combinator, one of the most referenced accelerators (Hathaway, 2016) were explored through dynamic capabilities approach and their implications on the startups' trajectories were identified.

This paper is the first to analyze and link the literature on accelerators, startups and dynamic capabilities. By doing so, we aim to contribute to the existing literature by understanding the underlying role and effects of the business accelerators in the development of new firm's dynamic capabilities and how they particularly create value for them. Our findings can be useful to scholars, policy makers and accelerator founders by developing a guide to improve their decision process and allocate resources better.

2. What an accelerator is: definition and features

Recent years have experienced the emergence of accelerators (sometimes called seed or startup accelerators) as new entities within the entrepreneurial landscape (Cohen, 2013; Pandey, Lall, Pandey, & Ahlawat, 2017).

It appeared as a consequence of the limitations of previous generation incubation models, advances in technology and new business philosophy (Bruneel et al., 2012b; Dempwolf, Auer, & D'Ippolito, 2014; Fedher & Hochberg, 2014; Hochberg, 2016; Miller & Bound, 2011).

The world's first Accelerator, Y Combinator, was founded in 2005 in Cambridge Massachusetts by Paul Graham, a successful entrepreneur and Jessica Livingston, a marketer, but quickly it was established in Silicon Valley (Miller & Bound, 2011). The idea was to invest small amounts of money in a cohort of early-stage firms and to support them during a three-month intensive program with the hope of long-term investment gains (Y combinator, 2018). In 2006, just a year later, one of the first portfolio firms, Reddit, was acquired by Condé Nast for a reported USD10-20M. This fact seemed to prove the validity of the accelerator model (Heinemann, 2015). In 2007, David Cohen, an entrepreneur, and Brad Feld, a venture capitalist, and entrepreneur inspired by Y Combinator founded TechStars in Boulder, Colorado (Hallen, Bingham, & Cohen, 2017). Since then, these two accelerators have become widely and quickly imitated worldwide by corporations, universities, governments, and investors as a highly effective approach to business generation (Fowle & Tyne, 2017). In 2009 there were five accelerators (Christiansen, 2009). That number dramatically increased to more than two thousand all around the world at present: F6S manages a database of 1052 accelerators (F6S, 2018), and Crunchbase includes more than 2054 accelerator programs in 2018 (Crunchbase, 2018).

There is no agreement on the universal definition that describes accelerators (Fowle & Tyne, 2017), but the basic idea behind it has stayed untouched (Heinemann, 2015). Based on the first researches (Cohen, 2013; Cohen & Hochberg, 2014; Miller & Bound, 2011), Fowle and Tyne (2017) and Heinemann (2015) extended the concept and defined an accelerator as an entity with the following features:

Fixed duration program (usually between 3 and 12 months)

1. Typically, growth-based (payment via equity rather than fees).
2. Often provide seed funding.
3. Cohort-based entry and exit.
4. A structured program which includes mentorship, entrepreneurial training, and networking opportunities.
5. Highly selective.

Many, but not all the accelerators, provide seed funding or stipend (USD 26 thousand on average, ranging from 0 to USD 150 thousand). The retribution is a non-controlling amount of equity participation (typically 5-7%) (Hochberg, 2016). Therefore, the main accelerators revenue source of income is actually equity gains generated by startups performance, thus implying a growth-

driven perspective, aiming to build companies that scale rapidly or fail fast in order to minimize wasted resources and achieve a positive exit (Cohen & Hochberg, 2014).

Nevertheless, there are accelerators which are only partially interested in financial returns or lack of ownership of the startups (Weiblen & Chesbrough, 2015), but expect non-monetary accelerator's benefits or goals such as innovation, marketing, corporate social responsibility (CSR) or public objectives (Heinemann, 2015). As a result, the goal achievement of accelerators is to link the quality of the startups it selects (Yin & Luo, 2018). Thus, accelerators are highly selective in choosing their participants (Hoffman & Radojevich-Kelley, 2012)

So far, literature has shown that accelerator programs present time limits, usually from 3 to 12 months (Heinemann, 2015). This short time frame is partly linked to the decrease in time and costs it takes to launch ICT-related firms (Christiansen, 2009; Miller & Bound, 2011). The establishment of timelines and strict graduation dates create a high-pressure environment that will stimulate rapid progress and avoid codependency in relationships between startups and accelerators (Cohen, 2013; Miller & Bound, 2011). To foster a sense of urgency within startups is vital for new businesses creation as it speeds up the development cycles of new ventures and forces them to test and validate their ideas fast, leading to quicker growth or failure (Fowle & Tyne, 2017; Heinemann, 2015; Kohler, 2016). Moreover, the process of speed brings efficiency to the market and also maximizes the profit of the program by reducing the amount of support that the startup needs from the accelerator (Heinemann, 2015).

According to the literature, the cohort-based approach is a distinctive feature of accelerators (Heinemann, 2015). Startups enter and exit an accelerator together in batches or cohorts. This model enables firms to interact with their peers encouraging learning among them, while also competing for scarce resources such as attention and follow-on investment funding (Smith et al., 2017). The latter generates very strong relationships between peers (Cohen, 2013), and events tend to be more relevant and make a more significant impact (Heinemann, 2015).

All accelerators include an intense and immersive education and mentorship programs aimed to accelerate the life cycle of their startups' portfolio. In such programs, they compress years' worth of learning-by-doing into a few months (Hathaway, 2016). The learning experience is achieved by well-planned programs that include frequent contact with mentors, entrepreneurial training and networking opportunities (Pauwels et al., 2016). Mentors are experienced entrepreneurs, investors, or other relevant professionals who are carefully selected by accelerators in order to provide advice and feedback to the startups along the duration of the program (Hoffman & Radojevich-Kelley, 2012). Although there are differences in how this mentorship is structured across accelerators, mentorship is a cornerstone of any accelerator (Cohen, 2013). Good mentoring is what makes the difference between failure and success (Rhett, 2014). In addition, an accelerator program often includes entrepreneurial training which covers a variety of topics such as legal and tax, finance, marketing, management and pitch.

Besides to the networking opportunities with both peer ventures and mentors, most accelerators offer the possibility to their ventures to contact program graduates, venture capitalist, and angel

investors planning events and promoting constant interactions (Kohler, 2016). Moreover, regular monitoring of the cohort is conducted by program directors in individual private meetings or check-ins with other ventures in the same cohort.

Finally, the accelerator 's experience often culminates in a public pitch event or "demo day" where founders pitch their business to investors and potential customers followed by formal and informal networking opportunities (Cohen, 2013; Pauwels et al., 2016).

Taking the literature above, an accelerator can be defined as a fixed-term, cohort-based, learning-oriented program aimed to assist new digital ventures early in their lifecycle by providing mentoring, education, networking opportunities and connections to potential investors in order to help them to grow fast and scale their business ideas (Hallen et al., 2017).

Accelerators are not primarily intended to provide inexpensive office space and in-house business support over a long period as other business incubation models (Bruneel, Ratinho, Clarysse, & Groen, 2012a). They focus on intangible resources from very early stages. This shift towards a focus on intangible knowledge business services highlights the importance of this kind of services to help startups (Chen, Lin, & Chang, 2009).

Table 1

Principal features of business accelerators

Assistance	3-12 months
Selection process	Highly competitive
Education	Well-structured program
Mentorship	Intense
Investment	Equity free/ No controlling participation
Venture location	On site

Source: Adapted from Bruneel et al., (2012), Cohen (2013) and Pauwels et al., (2016)

Primarily, an accelerator provides a way to cope with a mix of necessities that entrepreneurs find difficult to cover by themselves (Hochberg, 2016). Furthermore, an accelerator can be a mechanism by which, new ventures learn and test their business ideas. The latter is due to a combination of financial and knowledge resources, structured in a specific program that provides them the best chance for high growth and accelerating the speed for reaching key milestones.

3. How an accelerator works: The process of business acceleration

Early evidence demonstrates the positive effects of accelerators on the startups' outcomes they work with (Fedher & Hochberg, 2014; Hallen et al., 2017; Smith et al., 2017). However, when measuring these positive effects, they are not equally distributed among all programs, meaning that depending on the accelerator, the quality of the impact on the startups varies widely (Hathaway, 2016).

There is widespread agreement that Y Combinator is a referenced accelerator inspired by multiple other programs to copy its acceleration model (Smith & Hannigan, 2015b). In comparison to other accelerators, Y Combinator (YC), the pioneer of the accelerator's model, has been successful and is always ranked as a top accelerator (Gruber, 2011, 2012; Hochberg, Cohen & Feher, 2015, 2016, 2017).

Since its foundation in 2005, YC has sponsored over 1500 companies with a combined valuation above USD 85 billion including billion-dollar companies such as Dropbox, Airbnb, Stripe, Twitch, and Reddit (Y combinator, 2018). Due to these results, YC is considered one of the most established accelerators becoming a relatively senior model (Smith & Hannigan, 2015). All these reasons suggest that YC is an optimal benchmark for the identification of a successful acceleration process.

Due to the reduced number of available literature review on this specific topic, it was necessary to rely on secondary sources including online articles and online interviews with experts in order to understand processes held by YC. Once the batch is selected and invested (150K in exchange of 7% of equity) by YC, the acceleration program starts. YC provides start-ups with the necessary help to grow rapidly into the best shape possible in three months to raise money on a larger scale. YC's Partners work intensively with founders performing 1-1 meetings in order to solve problems and doubts (related to better shaping the product, raising money, the company itself). Also, founders have "Group Office Hours", they can meet partners and other founders and talk about the challenges or problems they are having as well as to report their progresses. YC hosts a dinner once a week and a talk with an eminent person from the startup world (startup founders, venture capitalists, journalists and executives from well-known technology companies) who ends up advising founders or investing in their companies. Moreover, YC facilitates different types of events or tools in order to promote the ability to learn with and/or from peers of the same batch and alumni. YC's startups have access to a large YC community which allows founders to benefit from the connections with YC stakeholders (deals with technology companies, contact with specific communities). Close to the end of each batch, YC hosts a Demo Day where startups present their products or services to investors and press. After Demo Day, founders have 1-1 meetings with investors who are interested in their companies. Unlike other accelerators, YC does not provide office, the cohorts work in their own locations, but they are required to attend in person all the events or meetings taking place during the program.

Following recent papers which link the dynamic capabilities of sensing the market, absorption, integration, and innovation to business superior performance (Bastanchury-López, M. T., De-Pablos-Heredero, C., García-Martínez, A. R., & Martín-Romo-Romero, S, 2019; De-Pablos-

Herederó, Fernández-Valero & Blanco-Callejo, 2017; De-Pablos-Herederó & Blanco-Callejo, 2019), we propose that the YC mix of resources and services embedded in specific routines present above results in the generation of these dynamic capabilities in their startups portfolio.

In this study, the capability of sensing the market refers to the firm's ability to identify and assess opportunities (Teece, 2012). Absorption capacity is showed as the ability of a firm to acquire new knowledge, transform it into firm-embedded knowledge and use it for organizational advantage (Lane & Lubatkin, 1998; Lumpkin & Katz, 2007; Zahra & George, 2002). Integration capability is related to the firm's ability to recombining both existing resources and those obtained to revamp routines and practices (Pavlou & El Sawy, 2011) and finally innovation capability refers to the firm's ability "to develop new products and/or markets, through aligning innovative strategic orientation with innovative behaviors and processes" (Wang & Ahmed, 2007:16).

4. The value of an accelerator regarding dynamic capabilities generation

After the literature review about business incubators (i.e Cohen, 2013; Kohler, 2016; Pauwels et al., 2016) and dynamic capabilities (i.e Pavlou & El Sawy, 2011; Teece, 2007; Zahra & George, 2002) together with the information obtained from the in-depth analysis of the available data about YC (i.e Barrehag et al., 2012; Stross, 2012; Y combinator, 2018), we identify certain practices deployed by YC as startups' dynamic capabilities drivers.

The following subset of capabilities are generated during YC program, allowing YC startups to create new products and processes and to respond to changing market circumstances.

4.1 Sensing the market capability

Not all the opportunities are viable (Song, Podoyntsyna, Van Der Bij, & Halman, 2008) so, being able to identify and select the right ones for new businesses is among the most important abilities of a successful entrepreneur (Ardichvili, Cardozo, & Ray, 2003). When an opportunity shows up, entrepreneurs are expected to figure out how to interpret new events and developments, which technologies to pursue, and which market segments to target (Teece, 2007). This situation causes the need for being continuously probing markets and listening to customers in order to understand latent demand, as well as the evolution of industries and markets, and the supplier and competitor responses (Leih, Linden, & Teece, 2014).

Acceleration programs include an initial phase (or discovery phase) in which teams are focused on refining their business opportunities to match what the startup has to offer and what the environment dictates (Kohler, 2016; Liao et al., 2009). Then, the teams are expected to work intensively with their ideas spending considerable time with potential customers with the purpose of validate the market acceptance for their products or services (Barrehag et al., 2012; Kohler, 2016). Thus, knowing and understanding customer needs is at the center of a successful business

(Ries, 2013) and the firm's attitude towards them becomes crucial (Landroque, Castro, & Cepeda-Carrión, 2011){Formatting Citation}.

Putting organizational mechanisms in place in order to gather new information, monitor customer needs, and competitor activity in order to shape new opportunities, strengthen the dynamic capability of sensing the market (Teece, 2007), which is what YC startups develop during the YC cycle.

YC encourages their startups to work intensively with their ideas to bring them to their potential customers as soon as possible (Barrehag et al., 2012) in order to solve the market uncertainty they face (Harms, Marinakis, & Walsh, 2015). YC advises its founders to "launch fast and iterate" (Fowle & Tyne, 2017) throughout "pivoting" (Barrehag et al., 2012). This iteration is a process for discovering the market, identifying their customers, and validating their business models (Trimi & Berbegal-Mirabent, 2012).

Startups evaluate the opportunities found by placing processes in order to obtain feedback from potential customers and initiate actions responding this feedback and then adjust quickly, discard or replace what it does not work (Ries, 2013). The aim is the continuous improvement of what is offered so that the new firms will eventually deliver what customers want. By using this approach, teams learn and acquire valuable knowledge regarding what doesn't work while using the acquired learnings to adjust the product or service accordingly.

It infers that YC helps its startups to develop their capability of sense by promoting the use of a systematic process, identifying and assessing their business opportunities, enabling them to produce the right products or services, target the right markets and address the consumer needs and leveraging the opportunity found.

4.2 Absorptive capability

Once entrepreneurs have identified a business opportunity, a new product or service must be developed, which requires to update existing capabilities through the acquisition of new knowledge and skills (Pavlou & El Sawy, 2011; Teece, 2007).

Accelerator concerns programme events focused on intense interaction, monitoring, and education (Pauwels et al., 2016). This intense mentorship and education program acts as a mechanism to improve the startups' absorption capability which is the ability of the firm to utilize new knowledge for organizational advantage (Lane & Lubatkin, 1998; Lumpkin & Katz, 2007; Zahra & George, 2002). This utilization involves a journey from the identification and acquisition of external knowledge through its assimilation, understanding to its application in a commercially viable way (Cohen & Levinthal, 1990).

Since its beginnings, YC hosts different kinds of events (figure 1) in which their accelerator management team or guest speakers talk about the common problems and issues, startups will

need to consider, such as their company growth, enabling them to access information which adds potential value (Christiansen, 2009).

Figure 1

Description of YC practices which foster YC ventures' absorptive capability

Practice	Description
Welcoming event	Group event for participants to create networks and meet each other
Prototype day	Showcase of project ideas between participants to identify possible synergies and practice pitch skills
Dinners	A weekly event where an eminent person of the startup world talks about his or her experience and teams report their progress.
Workshops	Conferences about a specific subject or other's experiences
Demoday	Pitch presentation for top startups investors/customers/press
Office hours	Individual intensive sessions with YC Partners to solve problems and doubts and asses of failures (with the purpose of improving the shape of the product, raising money, the company itself)
Group office hours	Weekly group sessions between peers and YC Partners to report their progress and challenges

Source: Adapted from Y combinator (2018).

YC startups also acquire knowledge through discussions with potential stakeholders thanks to experts databases they have access to, that allows them to be in contact with domain expertise and get targeted feedback (Freel, 2005; Y combinator, 2018).

In addition, YC offers mentoring services, provided by the accelerator management team. Sessions vary from individual introductions on an as-needed basis to a programmed weekly group meeting (Y combinator, 2018). These individual and group advising sessions provide startups with business assistance, guidance to solve problems and questions, analyze failures, learn from peers who have

overcome similar obstacles and enable accelerator management team to monitor their progress (Pauwels et al., 2016; Stross, 2012). These sessions help teams to absorb and apply the knowledge they gathered through the program as they allow them to adequately understand and process this knowledge for its future application (Chen et al., 2009; Lumpkin & Katz, 2007).

Thus, YC's education and mentorship programs help the generation of startups' absorptive capability as it enables them to expand their knowledge base, improving their ability to assimilate and utilize that information consequently enhancing their future development.

4.3 Integration capability

As an emerging business gradually becomes defined, continuous adaptation and market validation is needed (Roseno, Enkel, & Mezger, 2013). Thus, the new business creation process is not a straightforward process as it involves a great deal of iterations cycles (Juntunen, 2017). This iterations or reconfigurations rely on the firm's capability to integrate new resources and assets including knowledge with those internally generated to revamp routines and practices (Pavlou & El Sawy, 2011). YC implements routines to make things happen. At the end of each event, YC startups report their progress and challenges forcing them to show progress and evolve in each session (Stross, 2012) due to what they know as the "the power of shame avoidance". Thanks to these evaluation moments, teams are boosted to combine their new knowledge and their existing one in solutions to confront their obstacles quicker and solve uncertainties as they emerged. This continuous knowledge integration allows startups to advance in their business. Evaluation moments are repeated on a weekly basis until the end of the program where a final event "Demo day" takes place. In "Demo day" founders pitch their business to investors and potential customers followed by formal and informal networking opportunities (Cohen, 2013; Pauwels et al., 2016). This event aims to advance into pilot projects, partnerships, or acquisitions (Kohler, 2016). Thanks to YC routines of continuous evaluation and surveillance within a short period of time, the integration capability of YC startups' is enhanced.

4.4 Innovation capability

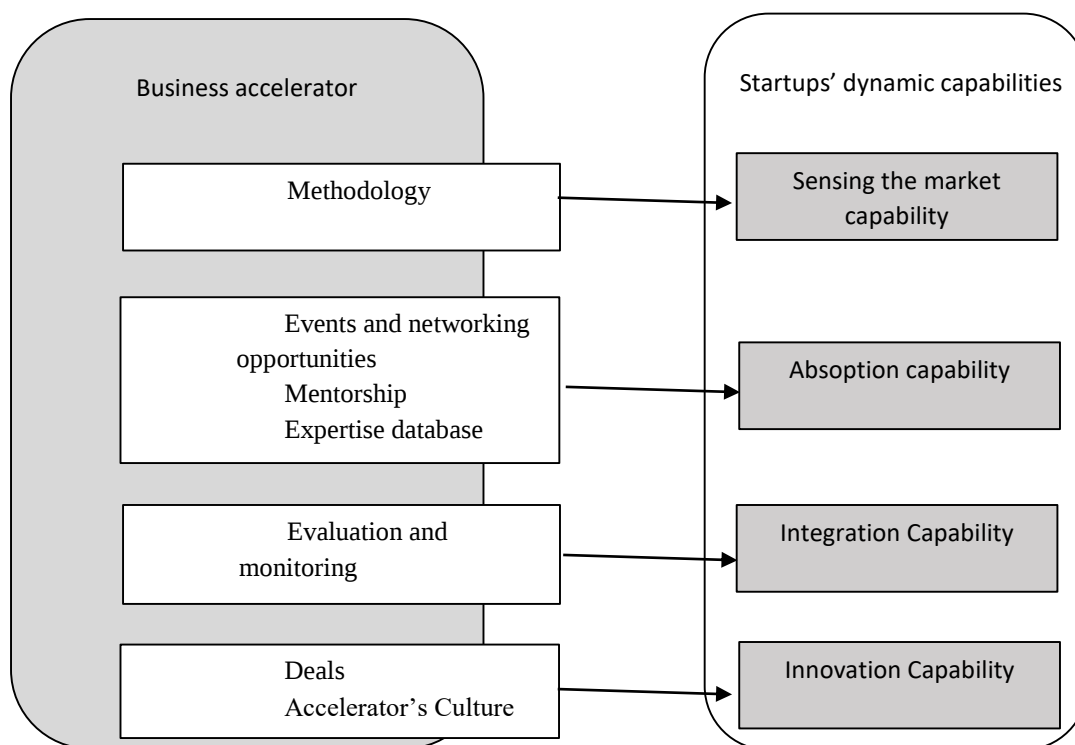
A firm's ability to innovate is a critical factor for its survival and success (Akman & Yilmaz, 2008; Monferrer, Blesa & Ripollés, 2013; Wang & Ahmed, 2004). Innovation capability perspective focuses on the outcomes of organizations (e.g., products, services, markets, business models) (Saunila & Ukko, 2014). However, the innovation capability of a company can be understood from a more global perspective taking into account all its dimensions (Wang & Ahmed, 2004). In this sense, the innovation capability of a firm is its ability "to develop new products and markets, through aligning innovative strategic orientation with innovative behaviors and processes" (Wang & Ahmed, 2007:16).

Based on the above definition, innovation capability described above is a multi-faceted construct (Saunila & Ukko, 2014) to technological and human aspects (Prajogo & Ahmed, 2006). The innovation capability of YC startups develops thanks to YC processes and resources that firms experience and acquire throughout their lifecycle.

YC has deals with many companies at the forefront of technology which supports YC startups' during their development process through different means such as free services or special access (Y combinator, 2018). These deals facilitate the technological requirements and obstacles constraints of YC startups' when creating new products or processes.

Figure 2

Proposed model of dynamic capabilities generation through YC business accelerator program



Source: Own elaboration

The culture of YC also plays a vital role in developing firms' innovation capacity. It is because YC culture has several principles that promote empowerment of YC startups' founders which an essential input to foster innovative behaviors (Prajogo & Ahmed, 2006) and thus innovation capacity (Wang & Ahmed, 2007). YC startups' work independently and come to YC headquarters usually once a week for meetings in which they receive advice but not command (Miller & Bound,

2011). The flexible structure of the program, with no office space and no close supervision routines, allows founders to possess a certain level of autonomy not to feel diverted of their focus (Kohler, 2016; Stross, 2012) promoting the generation of their innovation capability.

Figure 2 presents the proposed model of relation which have been found between Y Combinator's services and startups' dynamic capabilities. As figure 2 shows, the different types of routines and services deployed by Y Combinator that we have described along the section promote the development of startups' dynamic capabilities. The Y Combinator methodology which includes a systematic process of identifying and assessing startups' business opportunities enables their startups to leverage their sensing the market capability. YC education and mentorship programs help the generation of startups' absorptive capability. Thanks to the continuous evaluation and surveillance, startups enhance their integration capability. Finally, the YC's culture in which startups are surrounded and the different deals YC have with relevant stakeholders promote the generation of innovation capability.

5. Conclusion and Discussion

This paper opens new paths toward understanding the role of business accelerators and the value of the processes embedded in them. In fact, this work highlights how startups can benefit from participating in business accelerators programs from the dynamic capabilities' perspective. This article contributes to existing theory on business accelerators, but also to new ventures dynamic capabilities theory by showing how a combination of resources and services embedded in business acceleration routines drives the generation of different dynamic capabilities in their portfolio companies. Our analysis suggest that accelerators may help their startups to generate dynamic capabilities and thus, achieve superior performance compared to non-accelerated ventures. Besides, it emphasizes the positive effects of mentorship and networking widely shared in academic literature (e.g. Hallen, Cohen, & Bingham, 2016; Wright & Drori, 2018), we found other business accelerators services such as methodology, surveillance, evaluations, perks, and the inner business accelerator culture seems to be critical elements that impact on startups development. Although the paper needs to be empirically tested, we are able to gain some clarity on the effectiveness of business acceleration mechanisms by leveraging the secondary data combined with dynamic capabilities theory and, it also provides interesting avenues for further research.

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Cost-Structure and the Volatility of Capitalism

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Abstract

This conceptual paper explores the phenomena of changing cost-structures and the implications for the volatility of capitalism and the possibility to manage firms in such a hostile environment and proposes future research. It also provides an explanation of why the relevance of accounting is lost, the so-called “relevance lost” debate (see among others Francis & Schipper, 1999).

The changing cost-structures raises fundamental questions concerning the resulting volatility of capitalism and the management of firms in such an increasingly more volatile environment. In Philipson, Johansson & Scheley (2016), we raised the question if it was possible to “...to ride the dragon.” Considering the importance of these phenomena, it is astonishing that we have not found any empirical research concerning them. They rest research questions, based on the author’s almost 25 years of experience as a senior executive in Scandinavian industry.

Key words

Cost-structure; volatility; risk.

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1. Introduction

Increased competition and, as a consequence, diminishing life cycles, have made differentiation strategies more important than economics of scale or cost leadership. “Competition has a large effect in shortening the longevity of products on the market.” (De Figueiredo & Kyle, 2006:258) This is reflected in the shift in focus from Porter (1980) to Porter (1996), and is underscored by (Raia, 1993, after Wagner & Busse, 2008), who have shown that 60-70% of life cycle profits result from decisions before the offering is even launched.

After WWII a typical product life cycle was 20 years. In the 1980s it has been reduced to 7-8 years and today it is typically 3-5 years, and:

1. Individual products having life cycles of 3 - 6 months (e.g. mobile telephones).
2. These individual products might reside within a technology with longer life cycles (e.g. 7 - 10 years as the 4G mobile telephone systems).
3. The very concept of a technology as such (the mobile phone is 66 years old now).

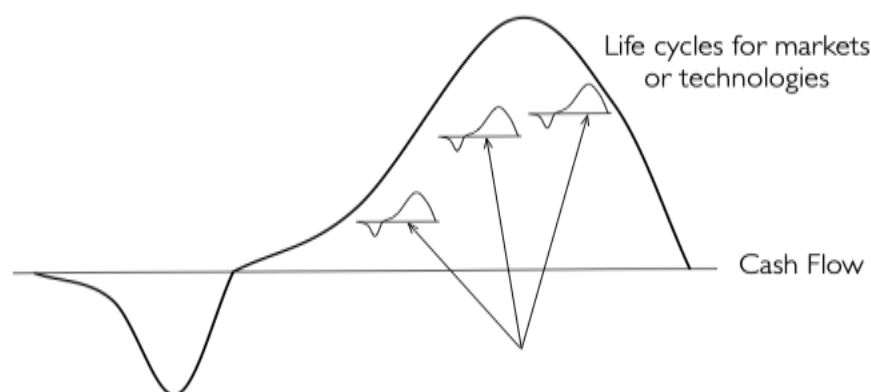
2. Shorter Product Life Cycles

The average product life cycle has been declining, ever since the capitalist system was born.

Figure 1 shows a typical product life cycle with an investment phase (the curve below the 0 cash flow line) and an exploitation phase with incoming revenues (the positive cash flow curve). When the product is a technology, e.g. 4 G, individual products have their life cycles within the technology life cycle.

Figure 1

Life cycles within life cycles



Source: Own elaboration.

Products do not last forever; they are developed, launched onto the market, grow, and eventually decline and die as they are finally supplanted by new or substitute products. The average product life cycle has been declining, ever since the capitalist system was born.

Shorter life cycles (Rink & Swan, 1979; Young, 1964, after Qualls, Olshavsky & Michaels, 1981; Olshavsky, 1980), result from increased competition. In the 19th century it was not unusual for a product to last for a century. The common claim of shorter life cycles has seldom been empirically verified, and the above studies are all problematic. But Magnier, Kalaitzandonakes & Miller (2010) provide such empirical evidence for a 12-year period in the US corn hybrid industry. "...corn hybrids with more advanced biotech features tend to have shorter product life cycles." (Magnier et al., 2010:33).

The consequences of shortened life cycles are the increased importance of the development of new offerings, and hence differentiation, and the importance of intellectual property rights, as well as other strategies to increase temporal monopoly (short-term uniqueness) has increased (von Hippel, 1988). At the end of the 19th century the life cycles of products (or services, or experiences) were 50-100 years. Innovation was not a big issue. Product life cycles have become much shorter. After WWII a typical product life cycle was 20 years. In the 1980s it has been reduced to 7-8 years and today it is typically 3-5 years, with (1) individual products having life cycles of 3 - 6 months (e.g. mobile telephones). These individual products might reside within (2) a technology with longer life cycles (e.g. 7 - 10 years as the 4G mobile telephone systems) and the very (3) concept of a technology as such (the mobile phone is 66 years old now).

The "...shortening life cycles of new products. In the computer industry during the early 1980s, for example, hard disk drives would typically ship for four to six years, after which a new and better product became available. By the late 1980s, the expected shipping life had fallen to two to three years. By the 1990s, it was just six to nine months." (Chesbrough, 2007:24).

However, in mature industries that have not yet suffered from substitution competition, the life cycles are still long. E.g. Coca-Cola is 132 years old, the company 128 (Wikipedia, 2020-12-12).

Hundred years ago, thus only 1-2% of the turnover of the firm was at stake each year, while today one third! To replace lost business, to retain the same size of the company, the 1900 firm had to launch products that could replace 2% of its business each year. Hence, 12.5% new products had to be successfully launched each year to compensate for lost business, if we calculate with the average failure rate in new product development. Today, with an average life cycle of 3 years, one third of the business is up for auction every year. With a failure rate of innovations of at least 75% (Evanschinsky, Eisend, Calantone & Jiang, 2012; Van der Panne, van Beers & Kleinknecht, 2003), and a needed 10% yearly growth, it is clear that managers of highly successful companies do not necessarily know if the firm will exist at the end of the year! Since innovation is risky, the firm might need a product development portfolio that is as large as the current turnover, or even more! (Van der Panne et al., 2003).

Table 1 shows the percentage of a firm's turnover that has to be renewed each year and the consequences in the form of the size of the product development portfolio that is needed.

Table 1

The volatility of capitalism

	1890	1950	1980	2005
Average life cycle	50 – 100 years	20 years	7 years	3 – 5 years
% of turnover at stake	1 – 2%	5 %	15 %	30 %
Necessary Innovation portfolio	2 – 4%	10 %	30 %	60 %
Portfolio with growth	2 – 4%	11 %	33 %	66 %

Source: Philipson et al. (2016).

These shortening life cycles have consequences for the cost structure of products and hence for how firms make business.

3. Cost-structure

The cost structure of a typical company in 1900 could look as is shown in Figure 1.

Figure 2

The cost structure of a company in 1900

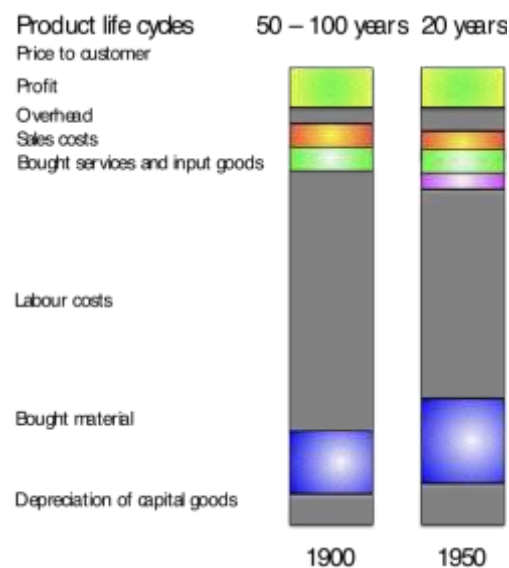


Source: Own elaboration.

In the following 50 years it only marginally changed. Management attention and a new science of management had evolved and focused on diminishing the direct labor costs, by introducing mean time measurement (MTM) and variable salaries. Of course, these managerial strategies go back to Taylor (1911/2001) but were widely employed only after the second world war; a consequence of the arrested development of capitalism as a result of the two world wars.

Figure 3

Cost structure in 1950 compared to the cost structure in 1900

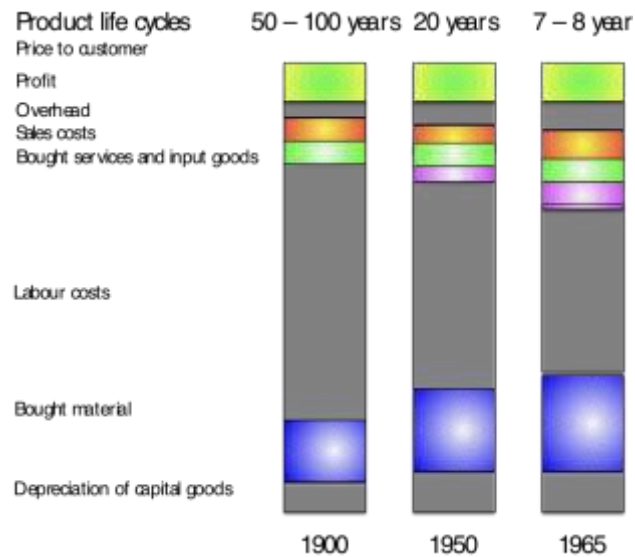


Source: Own elaboration.

In 1965, the efforts to diminish direct labor costs had resulted in radically increased costs of bought material and hence, management attention and academic research focused on Just-in-Time, JIT, capital rationalization, and other means to beat down the costs of bought material. These practices were typically subject to academic research a decade later (Aglietta, 1979; Palloix, 1976, both after Sayer, 1986).

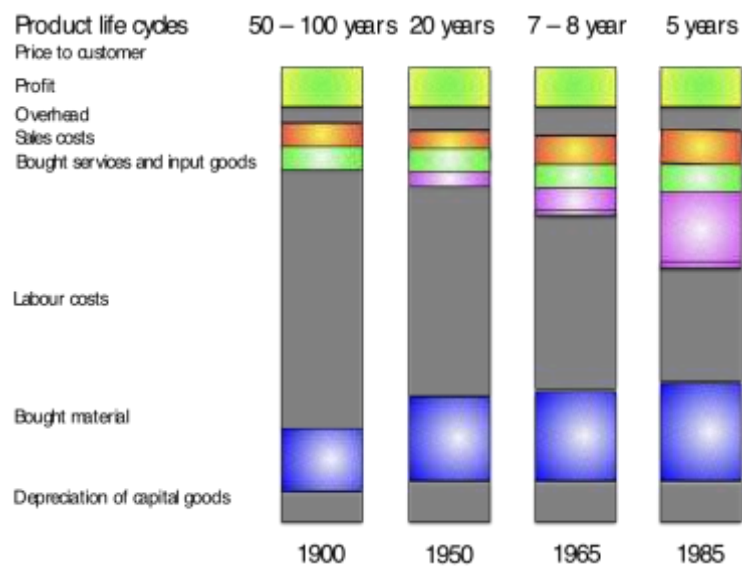
By 1985 the new engineers that had been employed to work with the new management techniques had become Mintzberg's technostructure (Mintzberg, 1979); hence the overhead costs had become important enough to become the center of attention (see Johnson & Loewe, 1987). In 1982 the author slashed down central staff and services at the then Asea Brown Boveri (ABB) headquarters in Västerås, Sweden.

Figure 4

Cost structure in 1965 compared to those of 1950, and 1900

Source: Own elaboration.

Figure 5

Cost structure in 1985 compared to those of 1965, 1950, and 1900

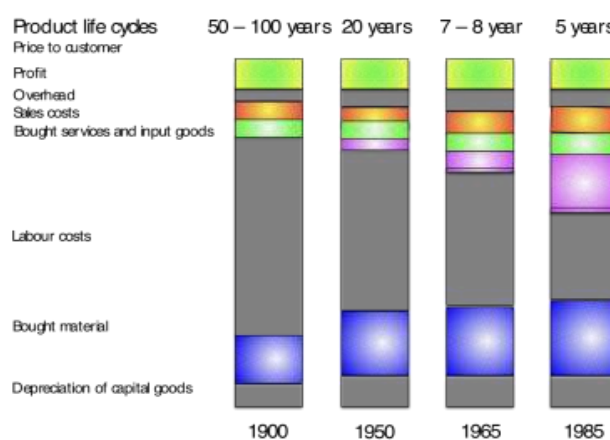
Source: Own elaboration.

By 2000 the cost structure had again radically changed. Increased competition had made innovation and the costs of global niche marketing the dominant elements and the center of attention.

In Figure 6 the business risk costs, innovation, organizing the value chain, and fixed marketing costs are identified as the lion's share of the cost structure.

Figure 6

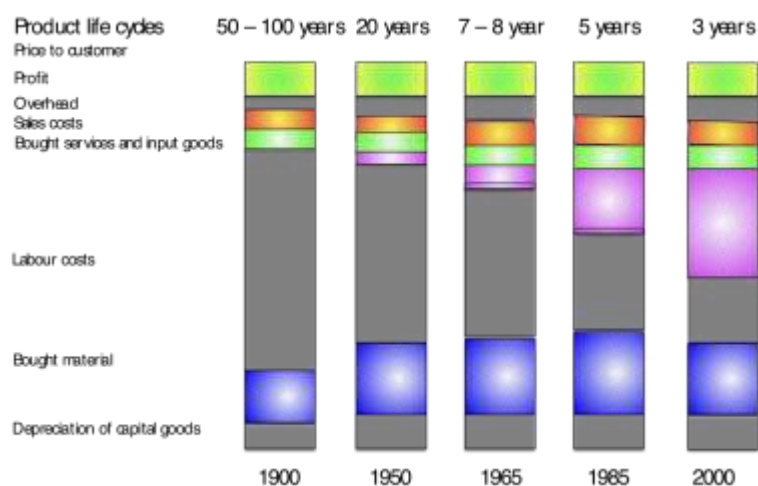
Cost structure in 2000 compared to those of 1985, 1965, 1950, and 1900



Source: Own elaboration.

Figure 7

The Cost structure in 2000



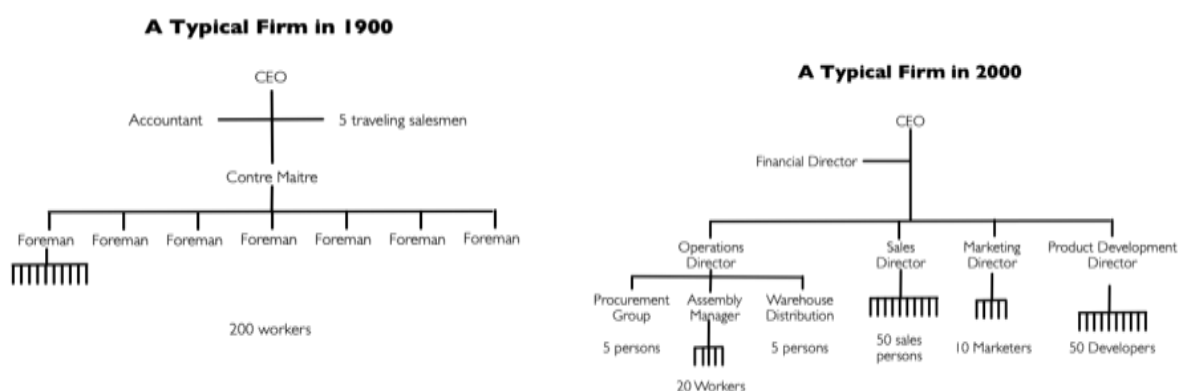
Source: Own elaboration.

The fixed costs that are risked include:

1. 'Pure' product development, R&D, development of the product or service architecture, interfaces between components, standards (proprietary or open).
2. Fixed production costs, certain parts of production costs have to be taken before any product is sold, be it setting up plants, buying machines, and for developing machine tools.
3. Fixed marketing costs, the production of marketing, buying 'space', etc., in order to be able to roll out the marketing when the 'window' of opportunity opens.
4. Organizing the value chain.

These changing cost structures have also had societal consequences. The typical firm in the year 2000 is very different from that of 1900, see figure 8. As a consequence, society is very different. In 1900 the class distinctions and living conditions were sharply different between on the one hand the owner-capitalist and the “contre-maître” (production director) and on the other the rest of the employees. In 2000 the spread in living conditions can be as large or larger, but the employees are “all over the place”, not at either ends of the spectrum.

A typical firm with some 200 employees 1900 and in 2000



Source: Own elaboration.

There are three major reasons why firms develop new offerings:

1. To replace products that are no longer competitive. Customers' needs evolve. If the company does not adapt competitors will. Hence, companies have to develop their offerings to meet competition or, if they fail to do so, must develop new offerings to compensate for the loss of those. Offerings hence have a "life cycle"; they will not last forever.
2. To grow. If the company want to grow, it must add new offerings or increase market share for existing offerings.

To gain (temporary) monopoly rent, abnormal earnings.

5. Conclusions

The changing cost-structures raises fundamental question concerning the resulting volatility of capitalism and the management of firms in such an increasingly volatile environment. In Philipson et al. (2016), we raised the question of if it was possible to ride the dragon. Considering the importance of these phenomena, it is astonishing that we have not found any empirical research concerning them. They rest hypotheses; here based on the author's almost 25 years of experience as a senior executive in Scandinavian industry.

6. Proposed further research

1. Longitudinal case study of the product cost structure of one or several products, based on internal company archive.
2. Longitudinal study of variable costs as a percentage of corporate annual returns of listed companies and if identified business risks are compensated by lower financial risks, increased solidity, to balance the total risk.

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Corporate Codes of Ethics - The How Factor

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Abstract

Although recognized as a key factor for its effectiveness, the adopted process for the development of a global corporate code of ethics, is one of the least documented aspects by Academia.

The code is often created at central level and then sent for adoption and implementation to the different branches within the organisation, and the fact that they are not involved in the development process, frequently elicits resistance and compromises effectiveness.

This was initially the case with the company of this study, where it was found that business units from different geographical locations had gradually made adaptations to the original code of the Group, which no longer remained the same across countries, neither in text nor in form, which led to the code review.

Developed through an action-research methodology, this case study describes the review process which included 30 people from all the Group companies. All defined goals have been achieved. The different companies' representatives consider that the participatory methodology was a key-factor to the general acceptance of the produced document. Three years after the code release, its efficacy was also evaluated with the Ethics Ombudsman who presented possible success indicators.

Key words

Global corporate codes of ethics; participatory method; Code of Ethics development process; ethics in transnational companies; action research.

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1. Introduction

1.1 Global Corporate Codes of Ethics and Relevance of The Development Process

A corporate code of ethics is a formal document developed by a company to express its commitments and the commitments of its employees “at least its managers and employees towards one another, the company, external stakeholders and / or society in general” (Kaptein & Schwartz, 2008, p. 113). It clarifies the objectives of the company, its standards and aspects related to ethical behaviour; it regards the company’s ethical responsibility in any part of the world it operates, even if it operates in a large number of countries. Take the case of Volvo — documented by Helin and Babri (2015) — which has production in 19 countries, employs more than 100 thousand people, operates in more than 190 markets and has a unique code of ethics, valid anywhere.

In fact, most companies operating in different markets develop a global code or “At least some standards of ethics that are binding on all employees worldwide” (Talaular, 2009, p. 349) because it is viewed as “A much recommended management instrument” (Kaptein, 2004, p. 13) to ensure or show that an attempt is being made to guarantee that the company assumes its responsibilities wherever it operates. Moreover, since companies use the same management model for their operations wherever they may be present, having the same universal approach to ethics would seem to make sense. “A global approach seems to fit the strategy of global firms because they expand internationally using a specific business model as a proven standard format” (Talaular, 2009, p. 350).

We use the expression *code of ethics* here, although many companies use the word ethics and conduct for the same type of document. In any case, there is formally a difference between the two concepts that may have an influence on its acceptance by employees in different countries. The codes of ethics tend to be more inspiring, axiological, more focused on principles, whereas codes of conduct are essentially a set of rules to be followed, in other words, they refer to obligations “whereas principles obligate to approximate ideals. More specifically, rules tend to be more concrete because they explicitly define which conduct the norm addressees have to apply. In contrast, principles remain more general” (Talaular, 2009, p. 356).

These global codes of ethics generally address a range of issues that do not seem to vary greatly depending on the company or its location (Kaptein, 2004), for example: relationship with stakeholders, transparency, honesty, justice, discrimination, or fraud; appear in almost all codes but, in reality, they subtly vary according to the nationality of the head office (Scholtens & Dam, 2007, p. 274). This variation may be the source of some of the implementation problems, how the code is accepted and how it is adopted by employees from different geographical locations.

Let us begin with the content, what is explicitly written: Innovation and creativity, for example, are respectively mentioned 73% and 46% more in Asian codes than in American and European codes. By contrast, the value responsibility / conscientiousness can be found just as often in American (30%) as in Asian (35%) and European codes (33%).(Kaptein, 2004, p. 27)

These are perhaps subtle differences, but they have been pointed out in a study that analysed the codes of the 200 largest companies worldwide. Naturally, culture differs from country to country, and certainly from continent to continent, and the same applies to codes. This corresponds to a need to show a global “voice” for the companies, rather than a true reflection of a unique way of feeling and being.

As for the way in which it is expressed, there are differences in many cases that may have an impact on the code acceptance. A good example is the case described by Helin and Sandstrom (2008) regarding the code of ethics implementation of a US company in a branch in Sweden. According to the mentioned authors, the code arrived in Sweden accompanied by an order to: “implement it and make everybody sign it” (Helin & Sandström, 2008, p. 283). This message, which certainly does not differ from the messages sent by many other parent companies to their different subsidiaries, may in itself give rise to a non-acceptance and even a total rejection of the code: “The receivers resisted the code by amplifying the importance of national identity. Rather than stimulating a discussion on ethics that might have strengthened the ties between the parent and the subsidiary, the outcome of the code implementation had the opposite effect” (Helin & Sandström, 2008, p. 281).

In the previous example, the front reaction of the Swedish subsidiary’s CEO helps us clarify the issue. He refers to the code as follows: “The rules presuppose that people are stupid. They treat people as less intelligent. Then people become pissed-off and then it can have a reverse effect” (Helin & Sandström, 2008, p. 285). And he is not the only one expressing disagreement, the production director accuses the strangeness of it, and in other words, says that the content does not truly reflect him as “It felt as if I was not at home when I read the rules. It was all about the US” (Helin & Sandström, 2008, p. 285).

These reactions corroborate the thesis that business ethics must be approached in context, because it does not arise in an isolated and unconstrained way: “It takes place in a social and cultural environment that is being governed by a complex set of laws, rules and regulations, formal values and norms, codes of conduct, policies” (Scholtens & Dam, 2007, p. 273). This influences the way content, form, and even tone can be interpreted: “For example, in an Asian country, a typically American code of conduct could be regarded as too comprehensive and forceful while the business principles of an European company could be viewed as too ambitious and abstract” (Kaptein, 2004, p. 27). That is why many schools of thought emphasise “the necessity to take culture into account when dealing with ethics in business” (Helin & Sandström, 2008, p. 281).

That is, as Kaptein and Schwartz (2008) point out, the word code has at least two meanings: the set of rules to which we normally associate the word, but before that, the code refers to something that can be deciphered in different ways in different cultures. The code can be seen as a “system

that gives meaning to a series of symbols, signs, or signals such as Morse code, the binary code, and bar codes” (Kaptein & Schwartz, 2008, p. 112).

It is a paradox. On the one hand, uniformity is not necessarily an added value. As (Kaptein, 2004, p. 24) says, the diversity in the content of corporate codes (also within countries) is not necessarily a negative sign. To have a different code of ethics from country to country, or from culture to culture, could even make sense: “When firms go global, they face ethical complexities as they operate in different legal and cultural environments that may impact the admissibility and appropriateness of their approach to institutionalize and implement corporate ethics” (Talaular, 2009, p. 349). On the other hand, as Moreira (2002) points out, local culture does not have to determine a code, because that culture may contain abuses and a code must be deduced from “normative principles that do not say how the majority acts — that would be sociology — but how we should act” (Moreira, 2002, p. 73).

But the truth is that, for the sake of security, or apparent ease of management or even obligation, most transnational companies choose to have a single global code of ethics in all their places of operation, and those that did not adopt this solution yet, are getting there (Kaptein & Schwartz, 2008, p. 111), by pressure of their stakeholders or forced by law. The challenge is to make a single code, but one with which the stakeholders of the different cultures where the company operates feel comfortable.

Taking culture into account can begin at a very early stage of the code creation process, including reflection and dialogue with stakeholders. This can produce significant benefits, especially in the acceptance of the created code, which will be less likely to be rejected in the subsidiaries. This is especially important if the goal of the code development is to promote change in the organisation. The necessary dialogue for participation may already be part of the intended change and alignment. “Ethical leadership and open discussions of ethics in the organization contributed to increased ethical behavior” (Stevens, 2008, p. 604).

The relationship between the code of ethics development process and its impact is recognised. Kaptein and Schwartz (2008) pointed out the importance of creating code supporters. This creates awareness and appropriation by employees, which in turn makes the code real.

1.2 Relevance of This Study

Most studies on corporate codes of ethics have focused on content and effectiveness, while disregarding the employed process for its creation (Kaptein, 2008); “(e.g., Cleek & Leonard, 1998; Davis, 2000; Frankel, 1989; Kaptein, 2004; Verbos *et al.*, 2007)” in (Messikomer & Cirka, 2010, p. 55). The aforementioned process is not something that should be disregarded, or which has no influence on content. In fact, Erwin (2011) stated that the adoption of the development process has a direct implication on the adequacy of the code content (Erwin, 2011, p. 537).

Identical vision is advocated by Kaptein and Schwartz (2008), who stated that similar codes may have different results, depending on how they were developed and, as a result, “the effectiveness of a code can diverge even if two companies have an identical code implemented in an identical way” (Kaptein & Schwartz, 2008, p. 119). Messikomer and Cirka (2010) even argue that it is difficult to establish a boundary between what constitutes the code-making process and the product itself, i.e., the code resulting from it.

The process has a direct influence, for example, on the identification of relevant issues, which would be difficult to achieve without a participatory method (Messikomer & Cirka, 2010, p. 59). In this regard, the same authors who developed a case study on the process of elaborating a code in a professional organisation, concluded that the process is the area which has been less studied. They say that virtually no empirical work on this topic exists, aside from a few limited cases (Farrell *et al.*, 2002a; Frankel, 1989; Gotterbarn, 1999; Kaptein & Schwartz, 2008; Kaptein & Wempe, 1998; Nijhof *et al.*, 2003; Sinclair, 1998) in (Messikomer & Cirka, 2010, p. 58).

Thus, this article aims to create awareness in the aforementioned understudied critical area, through the dissemination of the code of ethics review process of a transnational company, where we played the role of actor and researcher. That is, one of the authors was part of the committee, and also a researcher on the subject.

The process documentation and narrative of this case study aims to show and validate the relevance of the participatory method in constructing the code, its acceptance and, ultimately, its adoption, i.e., being incorporated by the organisation.

It refers to a qualitative, exploratory and descriptive case, in which the purpose is not only to document the process, the methods used, the doubts and emotions felt by the team during the process, but also to propose generalisations based on literature lessons and on the obtained experience and reflection.

The relevance of our case, a single case, is, as Yin (2001) pointed out, the fact that it can be “used to determine if the propositions of a theory are correct” (Yin, 2001, p. 62). Therefore, the thesis is that the participation on the development process not only facilitates the processes of codes of ethics appropriation in different branches of transnational organisations but is also crucial for the quality of the document produced, better, the quality of the result. Additionally, this particular approach has been identified “as advantageous in addressing the complexity of path-dependent explanations” (Roque *et al.*, 2020, p. 277).

Currently, more and more companies are acting on a global scale and are concerned about the standardisation of values and practices. Therefore, testing methodologies that allow for a change from imposed codes, possibly only elements of a formal ethics, to codes adopted by employees, with the potential of actually becoming part of the day-to-day within businesses, takes on special importance. To have people convinced about the code is fundamental for its existence, because the diffusion of the ideas contained in it is not done *per se*, “it is people who pass them on to each other, each one translating them according to their own frames of reference” (Czarniawska, 1997,

p. 95). In other words, individuals ultimately are the ones who truly make the code alive and a relevant element for the organisation, a true contribution to a change in behaviour and to the ethical climate.

1.3 Methodology

The structure of our case involved a storytelling approach, centred on the ethics ombudsman and the code-development team. This approach aims to generate a narrative that helps to understand the process, challenges, solutions, obtained results, and the way that the process was felt, lived and reflected by those who participated in it: “The narrative is a way for us to make sense of our experiences to ourselves and relate those experiences to others” (Poulton, 2005, p. 1). In summary, we were interested in studying the impact of the process on the product.

Our narrative follows a chronological sequence: beginning with the background and environment, it presents the process and the evaluation developed by the participants of the various geographies upon launching the code; and concludes with the vision of the process, and the evaluation of the code effectiveness, by the company’s ethics ombudsman, three years after its initial disclosure.

This code was the company’s second code of ethics, and we used excerpts from an interview conducted to the only element present in the team that developed both versions of the code — the original 2005 code and the revised one. Different business units (BU) team members’ testimonials of the review, extracted from the ethics ombudsman’s report, were also used, as well as an interview with the company’s ethics ombudsman (EO) which, although carried out retrospectively (three years after the code review process), will have excerpts included in the narrative of the case itself.

The interview with the ethics ombudsman represents the company’s view after the test of time and is very relevant because it allows us to identify gaps and success indicators, for which there was no clear perception at the time.

Some excerpts from the interview are also included in the discussion, since part of this final interview also dealt with concerns and relevant aspects for which we still do not know the answer to and believe they are important to delve deeper.

The case study was created based on an action research strategy with one author participating (as an academic and as a consultant) in the process. The first objective of this participation was to support the development of the code itself: “to make action more effective while simultaneously building up a body of scientific knowledge” (Coghlan & Brannick, 2005, p. 4).

The fact of having integrated the entire process allows us to develop this narrative with a perspective. The researcher supported the search with external information to the company,

facilitated debate and recorded the contents of the internal meetings, collected all the documentation produced and participated in the final writing of the code.

The objectiveness about the results obtained and about the way in which the process was carried out is ensured by the statements from other participants and, above all, by the final texts of the codes of each company of the Group. However, in the course of this narrative, references to the researcher's feelings often arise, which are, some of them, corroborated by the words of the ethics ombudsman, in the excerpts of the interview.

1.4 Company Presentation

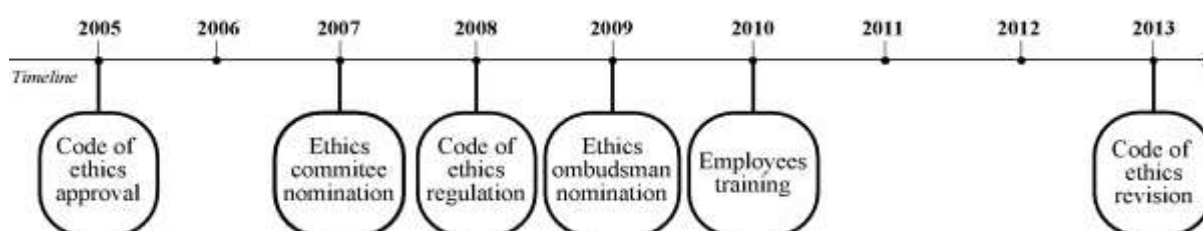
The company is a global economic Group present in 14 countries, employing roughly around 12 thousand people. It is recognised worldwide in the field of sustainability as one of the reference companies, with tenth consecutive presences in the index the Dow Jones Sustainability World Index (DJSI), some of them as sector leader.

In addition to being evaluated annually by the SAM methodology of the DJSI indexes, it is worth highlighting, within the field of ethics, its presence in the FTSE4Good index since 2011, and in the *World's Most Ethical Companies* ranking of the Ethisphere Institute since 2012.

In 2005, the Company launched its first code of ethics (Code). In 2009, after the Regulation of the Code of Ethics' publication (Regulation), an ethics ombudsman was appointed, and employees underwent a broad training (Figure 1). The company was aware that "when the implementation of a code is not supported by other instruments, it has negative effect on employee's perceptions of ethical behavior in the workplace" (Kaptein & Schwartz, 2008, p. 119). So, updates of the code were planned from the beginning, as part of the company's "ethics programme".

Figure 1

Chronological Evolution of Company Ethics Programme



Source: Own elaboration.

The code was revised in 2013 — a process documented herein — and released in 2014. After that, and until the moment this case was elaborated, ethical performance management mechanisms were developed and strengthened through the creation of a corporate index of ethical performance. The inclusion of ethics in performance assessment and in welcome training, the ethical risk analysis and the development of a code of conduct for senior management based on the revised code of ethics, were examples of support instruments.

2. The Code of Ethics Revision

2.1 Background

The process leading to the code revision was triggered when preparing the first training sessions on the code of ethics for the employees.

At that time, it was identified that, although the code had been sent for implementation in the different BU, it had not been adopted uniformly in all of them, namely in Brazil and Spain and, to some extent, minor changes had been made to the text so that it would fit in and respond to what were considered, by each geography, to be real needs. This situation according to the ethics ombudsman, was not compatible with what was intended: “that is, the code was to be used as a reference, namely within the ethical performance management system – a document to be seen as a company commitment, facilitating internal and external scrutiny of company’s actions”. (EO)

The search for tuning was to identify the starting points for the code future review.

Another starting point was the change in context. Since the launch of the first code, there had been major changes in the Company’s business context: market liberalisation, business diversification, increased involvement of suppliers as a result of increased services outsourcing and, above all, a change in the geographic multi-national scope of the company.)

2.2 The Review Process

When the code review began it was decided that it would be carried out with the support of a group of about two dozen people, from Business and Organisational Units (OU), created to support the ethics management (Ethics Focal points). The involvement of this group was, as Martens (2005) considered, the first step in building a global code. The members of the group “are responsible for providing input on content, ensuring that the document addresses relevant issues in each of the major geographical areas where the company operates, and discusses the standards in a way that is meaningful in each culture” (Martens, 2005, p. 1). That was exactly what was expected from the group.

In addition, to support the Ethical focal points’ group in the reflection and approval of contents, a restricted team was set up with a more operational function, such as carrying out searches, analysing internal documentation or writing the code itself. The team was composed by the ethics

ombudsman, an element of the Sustainability and Environment corporate office, which had participated in the writing of the previous code, and two external elements from the Academia, as consultants, where we were included.

The involvement of those groups, the focal points and the restricted team, makes a difference in relation to the original code-making process, in which only a small number of people were involved: the general secretariat and the sustainability director. In this update, more than 20 people actively participated in the aforementioned review, with a total of about 100 hours of meetings between the two teams.

The focal points group met three times during the code-making process (over 10 months) with an average of 17 participants per session, an aspect to be highlighted given that each session lasted 4 hours and the participants had, in general, high seniority in the company.

How was that possible? According to the Ethics Ombudsman, because: “A climate of construction and trust was created, a climate in which it was shown that the participation of people was important, that they were heard, not as a proforma to say that they had been consulted” (EO).

That is, there was the conviction that “Employees should be involved in the process, not necessarily in order to gain their ‘buy-in’ or sense of ownership, but to help ensure a relevant and realistic document is produced” (Schwartz, 2004, p. 339) — a document that met the real needs of the Group.

Concerning the generated dynamics, it is also important to mention how the project was led, by the ethics ombudsman, regarding the restricted team. Despite the fact that two consultants were part of the team, there was a real idea of building a team and not the usual delegation, which is common and, as Scharmer (2015) argues, should be avoided: “the greater the complexity of a situation, the more important it is not to outsource: one must stay in touch with the issue as it evolves” (Scharmer, 2015, p. 125) and this is what happened. There was an assumption of the topic complexity and an enthusiastic embrace of the project by the entire team that worked together — internal and external elements, sharing knowledge and doubts throughout the process.

The project began with a plenary session of the focal points group, in which the review guidelines were discussed. The intention was not to make a new code, but a revision, in which the original code would be identifiable.

The mission presented to the group was to make a code that corresponded to a level of group commitment to be respected anywhere in the world: “a code of minimums, in the sense that we all agreed that it could not be diminished. A consensual code, a code more axiological than deontological” (EO).

However the code would have to respond to the needs felt by all the Group’s BUs. At the kick-off session, content proposals were already presented at the outset, by some business and organisational units.

After this meeting, and already within the scope of the restricted team, a hermeneutic work was done regarding the 2005 code. The purpose was to know the true meaning of the words and what they implied, that is, a work was done to decode the code, in the perspective mentioned by Kaptein and Schwartz (2008).

This work involved:

- Identifying, in the original code, references like “obligation of the company”, “the company and its employees” or only “the employees” and the meaning in terms of commitment of each one of these references.
- Analysing, one by one each of the topics, in a perspective of clarity of the language which, in some cases, originated a new draft, though maintaining the original meaning.
- Identifying repeated aspects throughout the code and the interest of grouping some of the topics.

A cross-check was made between the codes of the different BUs, identifying and systematising differences, as well as a benchmarking of codes of the main companies of the sector, to identify new issues, new concerns and aspects to which the code should respond. The extent of this analysis and, above all, the depth of the reflection that emerged from it, was not something predicted from the outset. The research work, analysis and needs assessment led to the questioning of the code structure itself.

This questioning was not easy to accept, especially for those who had been involved in the development of the prior version. There was a kind of resistance, a modesty in touching the text that, in the origin, had been the fruit of much debate and reflection even if only a very restricted team was then involved. This resistance was only surpassed when the objectives of revising the code were defined and explained in a clear and formal way, even if they were already implicit before. The objectives were:

- a. Clarify aspects that had been identified as less clear from a language point of view.
- b. Promote uniformity among BUs — obtain consensus on the fundamental standards, without prejudice to adjustments to adapt to the cultural and business specificities of different Bus.
- c. Refresh the previous version — following the changes of internal and external context that needed to be taken into account.

It was this explanation that, in some way, makes the resistances disappear and allows the shifting from an operational cycle, in which the change is done surgically and reactively, in response mostly to occurrences and new regulation; to a strategic cycle, which starts with an assesement and definition of goals. This strategic cycle starts with stakeholders interviews (in this case, the various business and organisational units, and international organisations) identifies new aspects, accepts questioning the type of code and creates a new code derived from the incorporation of all inputs (Figure 2).

However, throughout the entire process, there was somehow a spirit of restraint which was no longer in fidelity to the previous code, but resulted, we believe, from a respect for diversity, and an awareness that this restraint was the safest way to make a code that could serve the Group: “The challenge was asking ourselves: what do we consider to be the least affirmation we can have as a group, and that may work, in the individual circumstances of the various BUs, and throughout the various geographies in which we are present?” (EO).

The objectives were formally presented at the second plenary session of the focal points group, where the proposal for a new structure was presented. That new structure retained two topics from the previous code: the “Scope” and the topic related to “Legislation”, although moving to a completely different organisation, divided in “Principles of action” and “Commitments to stakeholders”.

Figure 2

Synthesis and Comparison of the Two Codes' Elaboration Process



Source: Own elaboration.

The new structure was approved in plenary. The Group was also presented with a proposal for a reformulated code index, containing a comparison with the previous code divided into three categories of topics: “equal”, “reformulated” and “new” — having, for each of the amended points, justifications for the change and possible sources. There has always been a concern for transparency in each change, providing these visible registers which allowed identifying each amendment’s context.

In the restricted team, and in the focal point sessions, there was a point-to-point debate, already supported by benchmarking summaries, recommendations and suggestions from organisation’s various members.

It should be noted that, beside the discussions that took place in the formal sessions with the focal points group, additional contributions from various BUs and OUs came to the team, as a result of their reviews and concerns. It was a question of attitude, a stance of openness and willingness to consider every doubt, every new idea, to try to understand why, and put oneself in others’ shoes. This followed what is proposed in the U Theory: a listener of the different actors in which, the voice of judgment, the voice of cynicism and the voice of fear can be silenced, to move forward in an open mind, open heart, and the open will posture (Scharmer, 2018). This was essential to prototype a solution to each problem; in this case, to achieve a common understanding, a consensual design, of what the ethical principles of this business group should be.

In addition, it was also made clear that the intended text, this growing consensual text, would not have to be exactly the same in all countries. It was a basis on which changes could be made — however never reducing obligations and commitments. It was a take on diversity: “When you have a unique instrument for a series of different realities that are cultural realities, business realities and even stakeholders’ (in some cases we have shareholders, in other cases not), we have to give these degrees of freedom” (EO).

For exemple for the company’s branch with significant operations in the US, the main issue was the donations to political parties, prohibited in several European countries and in the Group’s own code of ethics, but which, in the legal context of the US, were allowed, to the point of considering that companies should provide mechanisms so that employees could make financial donations to entities of this nature.

It was decided to maintain, in the “Integrity” topic, the prohibition of the financing political parties by the Company in any part of the world, and to include in the topic “commitment with employees” the possibility for the company to support them in the collection of donations from personal order to political parties.

The objectives of ethics management in the company were also explained in the revised code. This inclusion is proving to be of great importance because it allows building a strategy in a more structured way, to define contents for the training of employees and even, later, to define indicators for the evaluation of the ethical performance of the company.

A distinction was made between “suppliers” and “service providers that are empowered in any way to act on company’s behalf”, the latter being now subject to the same standards of conduct as company employees. The distinction was made because, for the external public, in many situations, it is not possible to distinguish between those who are company employees and those who are employees of companies that acted on their behalf and which, in many cases, provided services even at customers’ homes. This situation, with the increasing externalisation of services, is common to many companies.

Once the code was written and the text stabilised and validated by the focal points, an attempt was made to make it clearer, to rewrite it so that it had a language that any employee could understand. In fact, in addition to concepts that may differ from company to company and can be clarified in a document such as an “explanatory guide” — for example, the concept of family — there are words corresponding to legal concepts, such as nepotism or money laundering, whose meaning may be unknown to some employees and need to be explained.

As was already done in several European countries, in the drafting of public laws and regulations, the use of a simplified language was tried, using a specialised company. The process, however, proved to be too complex and it was not possible to arrive at a satisfactory compromise text. Alternatively, although it did not meet the same objectives, a code mini guide was made, containing a summary of the principles, commitments, and complaints management process.

At the last plenary session of the focal points group dedicated to the code, it was announced the sending of the code for approval to the Executive Board of Directors and the implementation plans were drawn up with all the BUs.

The Code was approved and was transposed to the different BUs, with almost no changes made by the respective Board.

2.3 Process Internal Evaluation at The Time of The Code Disclosure

At the time of the code disclosure, in the context of the preparation of the ethics ombudsman annual report, an evaluation was carried out with the participants on how the review process had taken place.

An interview was also carried out with the elements that had been involved in the drafting of the code’s first version comparing the two cases, stating that the review “was a very intense and participated process, with a great deal of participation from the team. They had many hours of meetings, deep discussions (...) there was interaction, there was a mental picture in which people participated.” This aspect is also referred by the representatives in the group of focal points of the BU present in the different geographies: “the drafting process of the new Code of Ethics, with the brainstorming that took place in all Group BUs, resulted in a consensual document in which the company (...) identifies itself completely, therefore making its adaptation occur with virtually no changes”; “The revision of the Code of Ethics in Brazil was the reaffirmation of the practice already

established and a new look at ethical issues, bringing them in line with the Group's guidelines and maturing the method of application of the Code to the Company's routines" (BU representatives).

From these testimonies, one may conclude that, the participative way adopted for the revision of the code, was a key factor to obtain a single text adopted by all. In fact, throughout the entire process, there was no imposition and, on the contrary, closeness and openness were shown by the Corporate Centre, to include what each geography considered relevant, to become part of the principles and commitments of the entire Group.

2.4 Internal Evaluation of the Code's Effectiveness and Quality, Three Years Later

For the purpose of our research and this article, three years after the release of the new code, we interviewed the ethics ombudsman to revisit the review process, to know what had been done since then, to understand how the document has been evaluated and about the perception of its effectiveness.

In the three years that followed the disclosure of the new Code, all employees were trained online, not only to make the code known, but also to disseminate the entire ethics management process in the company. With minor adaptations, this training was the same in all geographies.

A series of awareness workshops on corporate culture and ethical risks were also organised, involving senior management in most countries. Workshops for middle management were also put in place in the same geographies, essentially reflecting on ethical culture and on the managers' role — now spelled out in the code — in reinforcing this culture. These sessions, both for the upper management and for the middle management, were not replicated in the some BUs according to the margin of autonomy that has to be given to each of them but "Nevertheless, even for reasons of communication, and internal and external perception of coherence, the company would like to be able to say that the same had been done in all geographies." (EO)

Another initiative was the training of the service providers' employees acting on behalf of the company or working on its premises and who, in this version of the code, are equivalent to company's employees. This training was designed with the support of the suppliers themselves which, in some way, complements the fact that, in the drafting of the code, they were not consulted: "This is not to make them participate in the writing of the code, but it is rather to help the interpretation of the code so that it could be made in their circumstances and open the company's willingness to listen to them, to speak to them on an equal basis about these subjects" (EO)

According to the ethics ombudsman, the effectiveness of the code can be measured by the degree of its incorporation in documents, in different parts of the world and in different areas: "the codes of conduct that were developed thereafter, used this code as a base and a reference, and this is an evidence of its effectiveness. The code is a normalizer" (EO). This middle step would allow metrics to verify the code incorporation in practice.

Another sign of the effectiveness and level of incorporation of the code at the organisational level is the fact that, even though people did not feel the need for its review, they recognise that, even in a compliance perspective, it was very useful: “This is also a way to measure effectiveness. It is a formal effectiveness that goes further than strict compliance. Our code is viewed positively by national and international auditors” (EO).

In addition, employees’ opinion in training evaluation questionnaires, often refer positively to the code and the complaints’ management process: “Most of the feedback we have (and there is many), although unstructured, it is positive. There are no negative comments referring the code” (EO).

The code of ethics’ regulation states that it should be periodically revised or, at least, its adequacy confirmed. But what are the signs and mechanisms developed by the organisation to detect a lack of adequacy? According to the ethics ombudsman, a signal can be the existence of complaints that, despite being perceived as making sense, do not fall into any point of the code: “When we feel that a claimed subject makes sense, that there is reason on the part of the claimant and it does not fit in the code, one gets the idea that it might be good to add a new subject. On the other hand, when legislation comes out or when someone sees a need for a code of conduct, the adequacy of the code of ethics is analysed in order to respond”. (EO)

In 2018 the Company was considering a new code revision, precisely by the emergence of new legislation on the prevention of harassment at work. This aspect was already conceptually incorporated, although not referring directly “harassment”, and the very inclusion of the word itself raises a problem that had not yet been discussed: “The English word harassment translates the Portuguese word assédio, but I do not know if it coincides with the Portuguese legal concept of assédio: when you translate a word, it can be translated correctly, but it may have another legal framework that influences its reading. For example, [the word] corruption may be well translated and have different meanings in different countries.” (EO)

3. Discussion and Conclusions

We described the process of elaborating the code and its results in relation to the intended objectives. However, we did not want to stop there, and instead also highlight a factor we believe was decisive in achieving the obtained results. It is something that Otto Scharmer (2015) referred to as the blind spot. According to this author, much research has been done on the results and on the processes in general, but we know very little about the “invisible dimension” of leadership (Scharmer, 2015, p. 6) and that invisible dimension refers to the characteristics of the leader, the quality of attention and intention that he/she puts in the process, “the inner place or source at the origin of his actions” (Scharmer, 2015, p. 7) and here we believe that this fact had much influence in what is achieved.

And what has been achieved that has not yet been mentioned?

In the revision, there was an evolution in the sense of framing the problems of today's world, which is reflected by the inclusion of "non-mandatory", but necessary issues for society, such as the Precautionary Principle, the commitment to promote sustainable lifestyles, or the recognition of minority rights. In this aspect, the company went far beyond what it was "obliged" to do.

If we consider the three generations of codes defined by Stohl et al. (2009), there is a shift from an essentially first and second generation codes — compliance with law and regulation and concerns with internal stakeholders — to a code that (keeping the previous dimensions), clearly already addresses the third generation: "The third generation of codes is triggered by globalisation. This generation establishes standards of ethical performance in relation to global stakeholders and the larger world community, transcending traditional organisational boundaries and the limited view that ethical and legal are synonymous" (Calderón et al., 2012, p. 6).

When we speak about leadership, we are referring to, not only the ethics ombudsman who is the formal process leader, but also the restricted team as a whole, who undertook the task of revising the code with a soulful attitude to which, somehow, the members of the extended group adhered.

Perhaps the reference to this aspect may seem partial and "unscientific", but it is not by chance that Otto Scharmer (2015) refers to it as the least studied part. In fact, apart from the statements already made and the participation rate at the meetings, there is little factual evidence. But the scarcity of evidence does not mean that a fact does not exist and should not be referred to.

The leadership, the person, the leader or the leaders, is, according to Scharmer, what makes that a process, even if rigorously repeated, may not have the same results: "Two leaders in the same circumstances doing the same thing can bring about completely different outcomes, depending on the inner place from which each operates. The nature of this inner place in leaders is something of a mystery to us" (Scharmer, 2018).

The characteristics of the leader, or leaders, are variables to consider and are limitations to the possibility of replication of this process with the same results.

Another aspect for discussion, given that this code also applies to suppliers, is the real effectiveness and legitimacy of codes for suppliers: Suppliers, which are today often located in developing countries, are given the codes, told to comply with them and informed that they are subject to audits as a part of the contract. Suppliers generally have little power to negotiate how the audits are carried out and are expected to comply with different buyers' demands; with each buyer carrying out their own auditing procedure. (Spence & Bourlakis, 2009; Jiang, 2009) in (Helin & Babri, 2015, p. 41)

In fact, if transnational companies have branches in several countries, they certainly have suppliers in many others, and these suppliers usually have several client companies, each asking them to subscribe to their code.

Ensuring that what is written in the code makes sense in the suppliers' country already poses a challenge: "We have a statement from the suppliers' management on how it knows and complies

with the code, and this is important as a formal act, but does not guarantee that any one of its employees, who goes to our client's house or who is here at our premises knows about the code. And to think that these people are going to walk with the our code in their pockets, it's a naive supposition because they simply will do not do so." (EO). The inclusion of suppliers seems to be, in many cases, given this impossibility of control, a question of compliance, which is, in line with what Roque et al defend, the stage of most most companies "with an approach centered in risk management and avoidance of penalties" (Roque et al, 2020, p13)

The issue for legal and cultural differences between countries is a subject to be explored and to be seen on a case-by-case basis. In this company's code, and in what respects to the differences between European and US laws regarding donations to political parties, the fact that the issue was openly dealt and discussed with representatives of the BUs in Europe and the US, allowed a satisfactory and consensual solution. This kind of practices can avoid situations like the entrance of ethics in Germany, in which a code of ethics imposed without a prior presentation and discussion with the workers' committee, caused a lot of problems (prohibition of love affairs between employees). That was seen as an interference in their personal life: "the Court asserted that (...) banning such relationships in general violated the personal rights of these individuals to freely develop their personalities and to update their lives according to their own preferences" (Taulicar, 2009, p. 353).

The aspect of adapting to the culture and law of different countries is one of the most important points of reflection in the elaboration of codes by transnational corporations, which can, as Tan and Wang (2011) refer, adopt one of four strategies: a strategy of "Defiance", ignoring the laws of the host country, which safeguards its reputation in the country of origin but may damage the local reputation; a strategy of "Camouflage", yielding to the laws of "host", as in the case of Google in China: "Google.cn, was blamed for kowtowing to the Chinese government and self-censoring what the government deems inappropriate" (Tan & Wang, 2011, p. 381); a strategy of "Compliance", fully complying with local laws, which is often the case with companies from developing countries operating in developed countries; or a strategy of "Negotiation", which is not limited to accepting or denying law and regulations of the sites of operation, but advances to a "dialectical process, in which distinctive logic components are translated and interpreted, and become integral parts of a new hybrid institutional logic" (Tan & Wang, 2011, p. 383), which was the case of the strategy adopted by the Company in the referred case in the US.

Also, the question of translation did not deserve the attention on the part of the companies and even the Academia. By visiting different companies' websites, often with codes translated into dozens of languages, there is a widespread sensitivity to the fact that a word such as corruption, although well translated, may mean different things under the laws of different countries. In fact, "translation could be more than simply dressing the code in new linguistic attire, it could contribute significantly in embedding the code in the local culture and favor implementation of its guidelines" (Tréguer-Felten, 2017, p. 138). For the Ethics Ombudsman "The best and safest approach is the axiological. For example, rather than talking about harassment would be to say something like

“acts of psychological violence and moral coercion”, explaining later, as it is in our code, with examples, such as insults, threats, isolation, invasion of privacy or limitation.” (EO)

This perception of greater security in the axiological approach is also defended by authors like Talaulicar (2009): “one may conclude that global ethics strategies tend to be more consistent, if they rather use principle based approaches for coding ethical conduct” (Talaulicar, 2009, p. 357). “Too specific codes may evoke conflicts because universalising specific requirements faces greater difficulties and barriers. In contrast to more general principles, specific rules tend to clash with more pronounced local customs, cultural, as well as legal norms” (Talaulicar, 2009, p. 358).

In addition to the security given by the axiological approach, there is also the matter of the level of requirement: when a more normative option is made, the level of commitment may be reduced, for instance: “A code that allows accepting or making offers up to €100 is more or less demanding than the code that places in one’s conscience the criterion for acceptance? It is possible to advocate that it is for less because this approach reduces personal responsibility. It is debatable”. (EO) These are questions which answers are not self-evident.

Language is another aspect that presents clear opportunities for improvement in the codes of transnational corporations. It is a difficult consensus between the tone of the rule and that of the principle, between the legal text and colloquial language. It is fundamental to guarantee the means so that, at least the employees (and the suppliers when applicable), have a clear understanding of the code: “Provide Clear Guidance (through examples, questions and answers, bullet points, or other techniques) so that employees understand their responsibilities” (Martens, 2005, p. 11).

The evaluating of the effectiveness of codes is directly related to its objectives. In the studied company it is clear that the code should be the document that establishes the ethical principles and limits as well as the commitments to its stakeholders. But how do you assess whether it is fulfilling that purpose? The implementation of the principles and the respect for the limits will be easier to measure for some themes and countries, but it is a shifting ground, according to Kaptein and Schwartz (2008) in 79 empirical studies on the subject. They reached conclusions in all directions: “35% of the studies have found that codes are effective, 16% have found that the relationship is weak, 33% have found that there is no significant relationship, and 14% have presented mixed results” (Kaptein & Schwartz, 2008, p. 113).

In any case, two factors influence the evaluation: the ambition of the objectives and the language used, especially as referred by (Martens, 2005): “Companies should avoid (...) ‘never’, ‘at any time’, or ‘under any circumstances’ in code standards, except where the company truly means this. In many of the cases, the company may make exceptions and employees will be quick to note inconsistency” (Martens, 2005, p. 11).

An interesting approach that allows an evaluation of authenticity is the one proposed by Kaptein (2015). To present three anonymous codes to a group and to have them guess which belongs to the organization. If people think for example that the code is the one of a company in a wholly

different industry or that they think that the code is a multinational whilst it is from a national company (or the opposite).(Kaptein, 2015, p. 58) we don't have a very authentic code.

We believe that a code made in a participatory manner has a better opportunity of being considered authentic. The process also represents an ethical challenge, due to the collective thinking; the need to listen to others and to make a collective reflection and analysis of the company's macro and micro ethical challenges; and the attempt to put it in writing in a way that allows better management and inspires better action

Finally, we know that the existence of a code of ethics, despite how good the process for its development, and despite how good the opinion of the parties involved in the process and even the stakeholders, does not guarantee per se an ethical action on the part of the company but it is certainly an important tool to support the development and reinforcement of an ethical culture for companies that want to implement it.

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Building meaningful brands through social media: a case study about hospitals

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Abstract

Implementing an efficient corporate communication strategy has become a priority for all hospitals interested in building a meaningful brand. To do that, most of these organizations resort to social media such as *Facebook*, *Twitter* or *Youtube*. Thanks to these platforms, hospitals improve and dynamise their relationships with stakeholders, especially patients, employees and media companies. This literature review paper aims to better understand how hospitals should manage these platforms in order to build a meaningful brand based on human values. To do that, we conducted a literature review about different concepts such as corporate communication, brand, social media, and reputation; and, based on this research, we proposed an online communication model aiming to help hospitals build meaningful brands (*Medpac Reputation Model*). We concluded that hospital organizations should implement professional protocols to analyze the information gathered from social media, prioritize a public relations approach and ban all marketing-related initiatives, and, finally, conduct constantly different research initiatives about the health market.

Key words

Health Organizations; Branding; Strategic Communication; Stakeholders; Social Media Platforms.

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1. Introduction

Implementing an efficient corporate communication strategy has become a priority for all hospitals interested in building a meaningful brand and reinforcing their strategic positioning in the health market. Thanks to a strong brand, hospitals can face some challenges such as patients' new demands and behaviours, the development of medical technologies, the implementation of new management techniques, or the consolidation of some international hospital groups. An increasingly number of hospitals consider social media platforms as the main corporate communication tool that they can use to interact with stakeholders and build a reputed brand. Nevertheless, hospitals need to better integrate these platforms in their employees' professional logic in order to helping them become more efficient from a professional point of view. This literature review paper aims to better understand how hospitals should manage these platforms in order to build a meaningful brand based on human values. To do that, we conducted a literature review about different concepts such as corporate communication, brand, social media, and reputation; and, based on this research, we proposed an online communication model aiming to help hospitals build meaningful brands (*Medpac Reputation Model*). This model includes ten communication principles, an annual content plan, fifty key performance indicators and an internal structure proposal. This model can be applied to all public and private hospitals around the world. Finally, we proposed three main conclusions as well as three main managerial implications.

2. Hospitals' Strategic Communication Initiatives

Corporate communication refers to external and internal initiatives that aim to create positive links between an organization and its main stakeholders (Van Riel & Fombrun, 2007). It integrates in a consistent way public relations, marketing and journalism activities (Mazzei, 2014) allowing the company to solve some organizational problems related to business, management or human resources (Maier, 2016). Most companies implement a Corporate Communication Department integrated by experts in reputation, public relations, marketing and economics who work in an integrated way according to different protocols, annual plans and key performance indicators (Medina Aguerrebere, 2019). This department is led by the Corporate Communication Director, who takes part in the company's board and assumes several responsibilities such as defining the brand architecture, managing the company's reputation or improving the company's relationships

with its stakeholders (Zerfass & Viertnam, 2017). Normally, this department integrate three main units: interpersonal, internal and external communication units.

Interpersonal Communication Unit. In hospitals, most employees have a direct contact with patients and their families, what constitutes a risk and an opportunity in terms of communication (Archipoli *et al.*, 2016). Health professionals disseminate several scientific concepts related to treatments, diseases and research so that patients can understand these insights and improve their health behaviours (Chan, Yu-Ling, Huxley, & Evans, 2016). To do that, these professionals need to improve their skills in interpersonal communication, as well as their emotional and intercultural abilities to interact with different kind of patients –children, elderly, aggressive people, etc.- (Gilligan *et al.*, 2016). Health professionals' skills in interpersonal communication constitutes a strategic issue for all hospitals engaged in improving the patient's empowerment (Medina Aguerrebere, 2019).

Internal Communication Unit. Internal communication initiatives in hospitals aim to disseminate the company's brand architecture in order to influence internal stakeholders' perceptions about the company, especially employees (Rodrigues, Azevedo & Calvo, 2016). In these organizations, employees communicate constantly through their behaviours, attitudes and performance (Helfert, Lugmayr, Heimgärtner & Holzinger, 2013). Hospitals need to innovate and implement efficient internal communication processes allowing employees to work in an integrated way (Peliti, 2016). Thanks to these initiatives, health professionals should be able to work in a more efficient way and satisfy patients' needs (Jahromi *et al.*, 2016). Moreover, thanks to internal communication initiatives, the whole hospital can adapt to new internal and external changes taking place in the health market, such as the development of e-medicine, the consolidation of private hospital groups or the economic crisis (Naveen, Anil & Smruthi, 2014).

External Communication Unit. In the health market, patients have become true opinion leaders able to influence hospitals' public image (Johnson, 2014). That is why, the hospital's Corporate Communication Director tries to reinforce the company's brand through establishing strategic dialogues with all stakeholders, especially with patients (Zerfass & Viermann, 2017). Implementing external communication initiatives lets hospitals to influence patients and create a favorable atmosphere concerning the organization, its services and employees (Naveen, Anil & Smruthi, 2014). Hospitals use several key performance indicators to constantly evaluate stakeholders' attitudes in order to adapt their external communication strategies and become more efficient (Moreno, Wiesenbergs & Verčič, 2016).

The hospital's Corporate Communication Director prioritize health education as a main value for all interpersonal, internal and external communication initiatives (Medina Aguerrebere, 2019). Health education activities such as conferences, workshops or books publishing about treatments and diseases positively contribute to improve the patient's empowerment (Haluza, Naszay, Stockinger, & Jungwirth, 2016). Health professionals should engage in these health education initiatives in order to reinforce the hospital's relationships with its stakeholders (Hannawa, García-Jiménez, Candrian, Rossmann, Schulz, Peter, 2015). Thanks to health education, the hospital's

employees improve their performance and become more efficient in their daily work (Brent, 2016). Integrating health education initiatives in the hospital's corporate culture helps these organizations reinforce their brand positioning and build a reputed brand in a collective way along with stakeholders (Jones *et al.*, 2015). Building a reputed brand involves several advantages such as improving the coherence among all communication initiatives (Maier, 2016), establishing trust relationships with all stakeholders in the long term (Van de Merwe & Puth, 2014) and achieving the organization's goals in a more efficient way (Kemp, Jilipalli & Becerra, 2014).

3. Hospitals' Branding Initiatives on Social Media

The hospital's Corporate Communication Director designs and implements a brand architecture helping the organization become an unambiguous, unique brand: in other words, they define identity, values, mission, vision and culture (Medina Aguerrebere, 2019). According to Maier (2016), *identity* refers to the main economic, cultural and social reasons why the organization's founders decided to create the company. *Values* are some tangible and intangible ideas based on the company's identity that aim to explain to employees how they should work to efficiently help the company achieve its organizational goals (Sheehan & Isaac, 2014). The corporate *mission* can be defined as the main objectives pursued by the hospital in the mid-term (Medina Aguerrebere, 2018). *Vision* refers to the main organizational objectives established by the company for the long-term and includes the practical techniques that they will implement to achieve those objectives (Singal, Jain, 2013). Finally, *culture* is an intangible concept that defines the unique way in which the company's employees behave for building an unambiguous, unique brand (Nelson, Taylor & Walsh, 2014).

Developing a branding strategy allowing the hospital to adapt to the constantly changing context has become a priority (Kemp, Jilipally & Becerra, 2014). Based on the hospital's brand architecture and its competitors' communication strategies, the hospital defines a brand positioning for the long term (Esposito, 2017). A clear brand positioning allows companies to build trust relationships with stakeholders as well as boost their own business initiatives (Ruiz Granja, 2015). According to this brand positioning, the hospital's Communication Director integrates the brand in all communication, management and organizational initiatives carried out by the company (Fernandez Luque & Bau, 2015). Integrating the brand in all hospital's initiatives involves several benefits. First, hospitals can implement a unique way of working that help the company to improve their patients' perceptions and satisfaction (Gombeski *et al.*, 2014). Second, based on this brand, hospitals can implement personal branding plans for some health professionals working in the organization in order to influence stakeholders' attitudes and perceptions about the hospital (Trepanier & Gooch, 2014). Third, many stakeholders, especially patients and their family, can become brand ambassadors engaged with the organization and its communication initiatives, what helps the hospital become a credible brand (Johnson, 2014). Fourth, hospitals can focus their internal functioning processes on the emotional support proposed to patients, health education initiatives and the patient's empowerment, what contributes to create an innovative health service

leading patients to engage with the organization in the long-term (Myrick, Holton, Himboim & Love, 2016). And fifth, hospitals can counteract the effects of other competitors' communication campaigns and protect their own niche market (Maier, 2016).

With the purpose of improving their branding initiatives, many hospitals implement a professional management of social media as a corporate communication tool (Fernandez-Luque, Bau, 2015). To do that, they must first fix some problems related to the lack of economic and human resources (Rando Cueto, Paniagua Rojano & de las Heras Pedrosa, 2016). According to several authors as Griffis *et al.* (2014), social media are the most powerful channel that hospitals can use to develop their brands and improve their relationships with stakeholders. These organizations implement a Social Media Department integrated by experts in corporate communication, engineering and public health, and apply several protocols and annual plans to work in an integrated way (Medina Aguerrebere, 2018). This department focuses its activities in three main fields: a) improving collective decision-making processes between health professionals and patients, b) enhancing the medical services quality from a scientific and communication point of view; and c) managing medical emergencies in a more integrated and efficient way (Lim, 2016).

Managing social media in a strategic and professional way involves ten main advantages for hospitals. First, thanks to social media, patients can establish a more symmetric relationship with health professionals, what contributes to establish a constructive dialogue and better satisfy their information and medical needs (Smailhodzic, Hooijsma, Boonstra, & Langley, 2016). Second, disseminating accurate scientific information through social media helps patients engage with the hospital and its employees (Househ, Borycki & Kushniruk, 2014). Third, implementing a professional management of social media as a corporate communication tool helps hospitals reinforce the patient's empowerment (Haluza, Naszay, Stockinger, & Jungwirth, 2016). Fourth, all information shared by patients on these platforms allows hospitals to better understand their expectations and attitudes, what contributes to improve the hospital's medical services (Bubien, 2015). Fifth, social media policies let health professionals to become experts in managing and disseminating scientific information; in other words, they become efficient brand ambassadors (Peluchette, Karl & Coustasse, 2016). Sixth, thanks to social media, hospitals collaborate with some public health initiatives (emergencies, education campaigns, etc.) and foster their relationships with health professionals and society (Matarin & Jimenez, 2015). Seventh, communicating on social media lets hospitals to explain in a visual, clear way their brand architecture (identity, mission, vision, values and culture) to all stakeholders (Pelitti, 2016). Eighth, thanks to social media hospitals build a brand in a collective way along with main stakeholders, such as patients and employees (Blomgren, Hedmo & Waks, 2016). Ninth, disseminating information about patients' personal experiences at hospital is an efficient way to build an emotional brand and reinforce relationships with stakeholders (Quintero, Yilmaz & Najarian, 2016). And tenth, social media metrics provide hospitals with quantitative and qualitative information about users' attitudes and behaviours, what helps these organizations to adapt their communication campaigns in order to be more efficient (Abramson, Keefe & Chou, 2015).

4. The MedPac Reputation Model

Using social media as a corporate communication tool allows hospitals to enhance their brand reputation in a more efficient way, optimize their communication budgets and accelerate their internal and external processes (Jiang & Street, 2016). Nevertheless, hospitals should always implement an online communication strategy based on human values because these organizations deal with people's rights to health and life (Medina Aguerrebere, 2019). Social media initiatives should reinforce all basic principles related to medicine and patient's rights, and highlight humanities as a key element in all branding activities (Campbell & Craig, 2014). Fostering this human approach in online corporate communication constitutes a priority because the hospital's reputation is directly related to human behaviours and expectations (Esposito, 2017). Moreover, the hospital's employees need to constantly interact with patients and other stakeholders for elaborating an integrated health service (Brent, 2016). Finally, these companies cannot exist if they are not associated with some deep values such as trust, emotional support, transparency, tolerance and equality (Gilligan *et al.*, 2016).

In order to help hospitals implement a human approach in social media, we propose the *Medpac Reputation Model*, which is based in five main elements: a) internal structure, b) key communication principles, c) annual content plan (brand architecture, key messages, targets and platforms) and d) key performance indicators.

Internal structure. Within their Corporate Communication Department, hospitals implement a Social Business Unit led by an expert in corporate communication, public health and management. They design and apply an annual social media plan as well as several protocols for different strategic situations such as crisis situations, public events, etc. These plans and protocols should be consistent with the hospital's corporate communication plan so that they become useful to help the hospital achieve its organizational objectives. The Social Media Manager employs several experts in corporate communication, public health, humanities, design and engineering; and outsources some external agencies specialized in branding or public relations. All employees involved in this department participate in different learning initiatives organized by the hospital (seminars, courses, moocs, etc.) in order to improve their professional skills in public health and communication, and properly interact with the hospital's departments.

Key communication principles. All social media initiatives should respect ten communication principles that aim to highlight the hospital's human approach (see *Table 1. Key Communication Principles*). First, hospitals use social media to become a credible source of scientific information allowing stakeholders to improve their expertise in health education, that is why these organizations prioritize learning initiatives focused on how to manage and understand medical information (Hannawa, García-Jiménez, Candrian, Rossmann, Schulz, Peter, 2015). Second, health professionals use social media for influencing patients' behaviours and attitudes about prevention and education, but not to promote the hospital's health services (Jones *et al.*, 2015). Third, hospitals engage actively with some public health campaigns promoted by local, national or international authorities in order to reinforce people's skills in health education (Weberling, 2014).

Fourth, hospital should use social media for reducing inequalities concerning the access to public health systems, medical treatments, medication, etc. (Peluchette, Karl & Coustasse, 2016). Fifth, health professionals respect all basic principles in medicine such as ethics, confidentiality or patient's integrity and integrate these insights in their activities on social media (Fischer, 2014). Sixth, health professionals should become experts in managing and analyzing information related to patients so that they can identify some humanities-related contents (sociology, anthropology, etc.) and apply them to their interactions with patients (Gilligan *et al.*, 2016). Seventh, Hospitals implement a multicultural and multilingual approach in order to help health professionals to efficiently interact with different types of patients, such as elderly people, violent patients, etc. (Paternotte, Dulmen, Van der Lee, Scherpbier & Scheele, 2014). Eighth, one of the most important priorities assumed by health professionals when using social media consists of integrating their patients in the collective decision-making processes (Blomgren, Hedmo, Waks, 2016). Ninth, health professionals use several platforms and mobile applications to promote interpersonal communication relationships in the hospital (Jeong, Tan, Brennan, Gibson & Hornik, 2015). Tenth, hospitals must increase their investments in human resources for allowing health professional to have enough time during their workday to efficiently use their social media platforms (Rando Cueto, Paniagua Rojano & de las Heras Pedrosa, 2016).

Table 1.

Key Communication Principles

	Principle	References
1	Source of scientific information	Hannawa, García-Jiménez, Candrian, Rossmann, Schulz, Peter, 2015
2	Patients behaviours	Jones <i>et al.</i> , 2015
3	Public health campaigns	Weberling, 2014
4	Access to public health systems	Peluchette, Karl & Coustasse, 2016
5	Basic principles in medicine	Fischer, 2014
6	Humanities related content	Gilligan <i>et al.</i> , 2016
7	Multicultural and multilingual approach	Paternotte, Dulmen, Van der Lee, Scherpbier & Scheele, 2014
8	Collective decision making processes	Blomgren, Hedmo & Waks, 2016
9	Interpersonal communication initiatives	Jeong, Tan, Brennan, Gibson & Hornik, 2015
10	Investment in human resources	Rando Cueto, Paniagua Rojano & de las Heras Pedrosa, 2016.

Source: Own elaboration.

Once the Social Media Manager has defined the internal structure (plans and protocols) and ten key communication principles, they design an annual content plan to integrate the hospital's brand architecture (identity, values, mission, vision and culture) with eight key messages addressed to eight targets through five different social media platforms (see *Table 2. Annual Content Plan*). The Social Media Manager is in charge of translating the hospital's brand architecture elements into different key messages related to patient's rights, ethics, or social engagement (human approach); and adapt this content to several targets using different social media platforms. Even if they can use all social media platforms during the whole year for interacting with all stakeholders, every month they should prioritize one target as well as one social media platform, one key message and one brand architecture element in order to improve the hospital's reputation on social media in an unambiguous, unique way.

Table 2.

Annual Content Plan

Month	Brand architecture	Key messages	Target	Social Media Platform
January	Identity	Respect of patients' rights and society's needs about health education.	Patients and society	Twitter
February	Value 1	Medical innovation based on scientific research.	Hospital's health professionals	Linkedin
March	Value 2	Ethics and deontology.	Other hospital's employees	Instagram
April	Mission	Scientific dissemination.	Media companies	Youtube
May	Vision	Social engagement.	Public authorities	Facebook
June	Culture	Commitment with best practices, and respect of employees' rights.	Shareholders and suppliers	Facebook
July	Identity	Respect of patients' rights and society's needs about health education.	Patients and society	Twitter
August	Value 3	Medical innovation based on scientific research.	Hospital's health professionals	Linkedin
September	Value 4	Ethics and deontology.	Other hospital's employees	Instagram
October	Mission	Scientific dissemination.	Media companies	Youtube
November	Vision	Social engagement.	Public authorities	Facebook
December	Culture	Commitment with best practices, and respect of employees' rights.	Shareholders and suppliers	Facebook

Source: Own elaboration.

Finally, the Social Media Manager defines and implements some key performance indicators (KPIs) for each social media platform (see *Table 3. Key Performance Indicators*). During the whole year, they measure the impact of all social media initiatives on stakeholders' attitudes and expectations according to these KPIs in order to prove in a quantitative way that these initiatives are useful for building a reputed hospital brand. On the other hand, the Social Media Manager applies some qualitative methods (focus groups, personal interviews, etc.) to better know what stakeholders think about the organization. This qualitative information allows the Social Media Manager to better understand some insights gathered through key performance indicators.

Table 3.

Key Performance Indicators

Social media platform	Key performance indicators	
<i>Twitter</i> (Datapine, 2019a)	1. Average amount of link clicks. 2. Average engagement rate. 3. Average amount of impressions. 4. Top 5 tweets by engagement. 5. Interests of followers.	6. Followers demographics. 7. Number of followers. 8. Frequency. 9. Positive or negative feedback. 10. Hashtag performance.
<i>Linkedin</i> (Datapine, 2019b)	1. Followers' demographics. 2. Number of followers. 3. Impressions. 4. Reach. 5. Engagement rate.	6. Company's updated statistics. 7. Viewer information. 8. Contact and network growth. 9. Profile views by job title. 10. Post views and engagements.
<i>Instagram</i> (Kindness, 2020)	1. Followers' growth rate. 2. Followers' demographics. 3. Engagement per follower. 4. Website traffic. 5. Link clicks.	6. Comment per post. 7. <i>Instagram</i> stories engagement. 8. Reach. 9. Impressions. 10. Positive or negative feedback.
<i>Youtube</i> (Datapine, 2019c)	1. Total watch time. 2. Total amount of video views. 3. Viewer retention. 4. Video engagement. 5. Number of subscribers.	6. Daily active users. 7. Traffic source. 8. Subscribers' demographics. 9. Top 5 videos by views. 10. Positive or negative feedback.
<i>Facebook</i> (Datapine, 2019d)	1. Number of fans 2. Followers' demographics. 3. Page views by sources. 4. Actions on page (likes, content shared, etc.). 5. Reach by post type.	6. Post engagement rate. 7. Click-through-rate 8. Impressions. 9. Frequency. 10. Positive or negative feedback.

Source: Own elaboration.

According to these qualitative and quantitative results, the Social Media Manager modifies the social media annual plan and proposes some suggestions to improve the hospital's annual corporate communication plan.

The *Medpac Reputation Model* focuses on human value content allowing the hospital's stakeholders to improve their knowledge and expertise about health-related topics. Building a hospital brand based on quality scientific knowledge useful for stakeholders constitutes a challenge as well as an opportunity to create a new hospital communication paradigm where employees integrate social media in their professional logic as a corporate communication and public health tool used for improving the hospital's medical services and building a reputed brand in a collective way along with stakeholders.

5. Conclusions

Most hospitals consider social media platforms as one of the main corporate communication tools they can use to build a reputed brand. This paper aimed to better understand how hospitals should use these platforms for improving their relationships with stakeholders. We proposed a communication model (*Medpac Reputation Model*) for helping these organizations achieve this objective. Thanks to this model, hospitals can implement social media in a creative and efficient way and associate their brand with human values, what contributes to improve their reputation. So as to conclude this paper, we propose three last ideas. First, hospitals must implement a knowledge management system letting them to manage and analyse the information gathered from social media platforms. Second, implementing a human approach involves refusing to use social media for achieving marketing or advertising objectives; in other words, hospitals should only use these platforms for public relations and public health initiatives. And finally, these organizations must increase their economic investments in research about patients' perceptions and behaviours, employees' expectations, media companies' interests, etc.; these insights are essential to identify the true stakeholder's needs and this way build a meaningful brand for all of them.

Finally, we consider that hospitals should also implement three main management initiatives. First, recruiting experts in corporate communication, public health, strategy and engineering able to work in an integrated way according to protocols, plans and key performance indicators. Second, defining an annual budget for the Social Media Unit based on professional criteria. And, finally, evaluating health professionals' performance according to some criteria related to their professional use of social media platforms.

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Insertion of Emerging Countries Exports in Global Supply Chains

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Abstract

The objective of this research is to create a reference model to help an emerging country prepare a strategic and tactical plan for its export potential using information from digital media. Countries' economic planning has to evolve using current knowledge of international business and global supply chains—areas that dominate commerce in the world today. Linking the foreign trade approach and the supply chain approach for the model development allows structured planning of the insertion of a country's companies into global supply chains and the reorientation of export sectors towards more sustainable benefits. The research demonstrates the possibility of applying and adapting knowledge from supply chain models to develop a model of global supply chain management supported by computerized tools designed from the perspective of suppliers. The modeling and planning of the coffee export chain in Peru illustrates this potential. The paper proposes the integration of two knowledge areas, international trade and supply chain management, to form a new field of interest. Knowledge in both areas is solid, but its integration across the two fields is not. Although there are several studies on this topic, very little has been achieved in terms of the creation of a reference model and even less in terms of the development of computerized support for adequate strategic and tactical planning.

Keywords

Global Supply Chains; Analytics; International Business; Coffee Export Market

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1. Introduction

Many researchers and entrepreneurs have highlighted the growing importance of global supply chain management (Tomas Hult, 2014) (UNCTAD, Geneva, 2013). The progressive liberalization of and advances in international transactions in production systems, facilities for access to real-time world information and improvements in logistics and services have encouraged the creation of global chains with participants located in different countries.

The conditions and methods for creating a management model for these global chains are of both academic and business concern. This new field of interest is formed through the integration of two areas of knowledge, international business trade and supply chain management. Knowledge in both areas is solid, but its integration across the two fields is not. Although there are several studies on this aspect, very little has been achieved in terms of the creation of a reference model and even less in terms of the development of computerized support for adequate strategic and tactical planning. On the one hand, we have many years' worth of knowledge and experience in the development of computer systems with specialized supply chain models for the strategic, tactical and operational planning of business supply chains. The goal of these developments is the economic profitability of the company. On the other hand, knowledge of foreign trade, reflecting an understanding of global supply chains formed by many companies located around the world, is widespread and accessible.

Linking these two areas to develop a reference model makes it possible to review the insertion of companies in global supply chains and reorient this insertion towards more sustainable benefits. The vision of this proposal focuses on the possibility of applying and adapting all knowledge of supply chain business models to develop a global supply chain management model supported by information technology tools designed from the perspective of supply companies.

2. Literature review

The topic to be investigated has received much attention in recent years due to its academic importance and relevance for the global economy. One of the important groups that has been publishing on this subject is located at Michigan State University. Dr. Tomas Hult, a member of the group, has published a book (Tomas Hult, 2014) in which he analyzes several points of the state of the art on the subject. Hult qualifies global supply chain management as "an area of increasing importance but understudied." He recognizes the limited literature on the subject and highlights the need to continue research with the following approach: "It is critical to integrate and coordinate efforts in logistics, operations, supply and marketing to maximize the management of the global supply chain." In one of the sections of his book, he presents a recent survey of American corporations in which he finds a lack of alignment between executives and officials on the vision, objectives and strategies for the globalization of their companies. In general, Hult's vision involves the integration of the areas of international business and supply chain management. He concludes that there is a need to align client requirements in the process of developing new products and

services with the strategic management of global operations and the geographical fragmentation characteristic of our time. Another professor at the University of Michigan, Dr. David Closs, has developed a framework to identify and analyze the competencies and capabilities of leading logistics and supply chain organizations (Closs, 2011). American, Australian and Argentine companies have used this framework. One important topic in the proposed research, namely, the relationship between public policies and the performance of supply chains, has been studied in the contexts of North America, Europe and the Pacific Basin. Finally, Dr. Ram Narasimhan, from the same university, has partially compiled the literature on decision models in supply chains and discussed their possible applications under globalization (Narasimhan, 2012). He concludes that these models can be developed using known analytical techniques but have not yet been adequately investigated.

The United Nations has published a study entitled "Global Supply Chains: Trade and Economic Policies for Developing Countries" (UNCTAD, Geneva, 2013). It recognizes the growing importance of global supply chains in achieving an adequate link between emerging countries and international markets. In turn, access to world markets as elaborated in current models requires greater supplier efficiency and competitiveness. These models emphasize that traditional foreign trade policies based on preferential access are no longer sufficient. Today, competitiveness requires consideration of a wide range of business factors such as those in the global supply chain model.

In related publications (Myerson, 2012) (Craig, 2019) from private consulting firms, the importance of the lean approach in global supply chains is highlighted. These works conclude that international logistics is a means of gaining a strategic competitive advantage and obtaining value. In both areas, the concept of leanness can help. Craig proposes a mapping of a typical international logistics movement that identifies areas where waste can be reduced.

In recent articles, the National Science Foundation has emphasized the need to focus on sustainability through operational research tools (National Science Foundation, 2015). Likewise, other authors highlight the relationship between analytics and agribusiness. They highlight the importance of making crop-related decisions in uncertain environments with changing climates and diverse soils with computational support from digitized information facilities. In another article, J. Byrum (2016) highlights the new strategy of combining advanced analytics and agricultural knowledge to find opportunities to increase the productivity of crops and optimize the process of plant breeding.

In a recent article, a group of academics address the social importance of the presence of global supply chains in the region of Murcia in Spain (Castro, C., Gadea, E., Pedreño, A., Ramirez, A., 2017). The article shows the political dimensions of the link between the region's productive areas and global supply chains over time. Craviotti conducts a qualitative analysis of Argentine citrus exporters' possibilities of leveraging synergies for more efficient insertion in global markets (Craviotti, C., Palacios, P., Soleno, R., 2010).

Another important article (Weintraub, 2006) highlights advances in operations research in agriculture and forestry, concluding that although some findings have helped improve

understanding and management of agricultural resources, more research and applications are needed, especially due to global economic growth, which demands greater efficiency from such firms. There have also been some successes with applications with similar objectives, such as those achieved in northeastern China (Zhi-Qiang, 2010). These involve the development and use of an agricultural decision support system that has partially met needs in an environment of growing demand. The system is based on spatial information technologies and simulation methods. It consists of three parts: (1) a spatial data warehouse of agricultural resources; (2) crop monitoring with a simulation package; and (3) decision support for the supply of food. Parker demonstrates the effectiveness in another part of the world—India—of the use of mobile telephony as a means of communication by creating a text message service with current daily prices for market participants. This initiative achieved an average reduction of 12% in the geographic dispersion of prices in rural communities.

3. Method

3.1. SKU identification

The first step in the structuring of global supply chains is to identify the stock keeping units (SKUs) of the chosen product. SKUs identify exportable elements and all the intermediate products in their production back to the raw materials. In cases where the number of SKUs is manageable (in the tens), these can be modeled individually. In cases where there are hundreds or thousands of SKUs, families of products must be considered, with an eye to the concern that this grouping should continue to allow reasonable measurement of demand, prices, costs and capacity consumption.

3.2. Identification of supply chains

The domestic supply chain participants that allow each exportable SKU to reach the port of exit have to be identified. The capabilities, transformation times and flexibilities and costs of each are then investigated. For transfers between different participants, transport modalities, capacities, times and costs were investigated. In short, all the supply chains for a selected product need to be highlighted in as much detail as possible.

3.3. Identification of demand chains

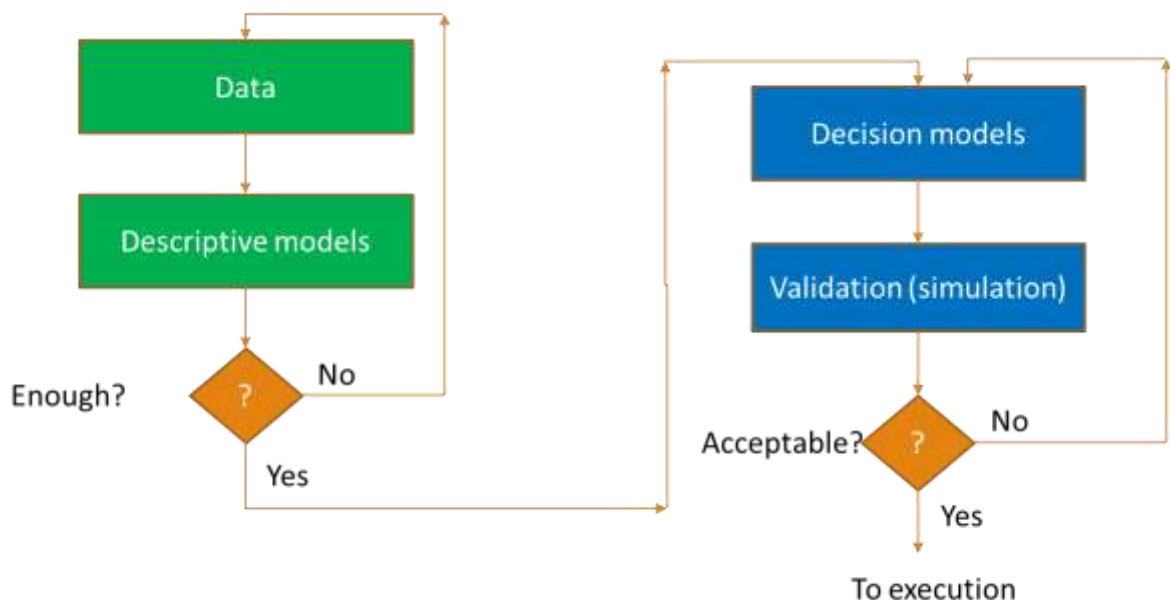
On the other side of the business, outside the country, all participants in the distribution and marketing of the selected product must be identified. At the end points of these demand chains, it is necessary to estimate possible demands and the corresponding prices. In the previous points, participants' capacities, times and costs were investigated. Likewise, for links between two participants, possible transport modalities, capacities, times and costs must be analyzed.

3.4. Study framework

The growing importance of global supply chains management has been driven by the current trend of so-called big data. The progressive liberalization of international transactions and improvements in logistics and services have coincided with the facilitation of enormous amounts of commercial information worldwide. The ability of both private companies and public sectors to analyze and take advantage of this information has quickly reached its limit, and although encouraging results have emerged, this has occurred only in specific and simple cases. The new knowledge area that has arisen in this context is known as analytics. The greatest development in this field is found in descriptive analytics (descriptive models), which has seen great advances from the digitalization of data and allowed for structuring that facilitates the analysis of both numerical and textual data. The state of the art is now leaning, as a logical consequence, towards two higher-level fields: predictive analytics and prescriptive analytics (decision models). The possibility of using large amounts of data to predict the future by looking for behavior patterns that often hide within a tangle of numbers and texts has been a concern of data mining for several years and is currently incorporated within the more general concept of predictive analytics. On the other hand, and perhaps more ambitiously, knowledge is moving towards the development of decision support tools based on these large amounts of data to lead organizations towards better results. This is prescriptive analytics, which is the line of work used in this research.

Figure 1

Development framework



Source: Own elaboration.

As explained above, the research project involves applying and adapting knowledge of supply chain management models to develop a global model supported by a computer system that exploits the large amount of information available with the aim of maximizing sustainable objectives over time. This model will be oriented towards providing support in decision making. The feasibility of the proposals will be tested in the context of the Peruvian coffee export chain, which is integrated into the global market. The corresponding design of strategic and tactical planning systems for global export chains will aim to foster more sustainable development in the country. Coordination of these global chains across all their functions and activities in supply, operations, distribution, market channels and sales involves finding opportunities to share decisions, integrate operations, create collaborative processes and share information systems with the integrated models proposed. To do all this, information was used to decide which global supply chain to use in the test and information applications to model both supply and demand. The data were structured in descriptive models that allowed us to feed a mathematical analytical model that serves as the foundation for the constructed tactical planning system. This search had to be fed back more than once to obtain a sufficiently descriptive model for the decision model. Validation is done in the final part of the work, which estimates whether the decisions recommended by the analytical model will have the estimated effect and whether they are appropriate for future planning. Figure 1 shows the framework followed in the project.

4. Analysis of global supply chains

Global supply chains have been widely studied by corporations that do business internationally, but they have not been studied by emerging countries whose products are marketed in these global chains. This research uses the forms of analysis of international corporations to understand the criteria used, but the ultimate goal is to model these chains from the perspective of exporting countries, taking coffee as an example.

4.1 Global corporate focus

The main criteria extracted from the strategies of global business chains are the following, with each explained in terms of how they affect our objectives:

- a. Added value for global chains. The most important criterion of a supply chain management model is integration, that is, the analysis of an entire business as a single system. A global perspective on corporate supply chains continues with the same concept: they must be managed as a true global chain, without bias towards any of the processes or corresponding functions, whether these are related to supply, transport, storage, production or marketing. Global chains must be managed on the basis of a fundamentally integral

strategy. Understanding this point is very important in a country's analysis of its international positioning. A country regularly participates in one of the processes: it supplies a particular input or manufactures a particular product. The message to keep in mind is that corporations value this participation based on its contribution to the global model. This is what must be understood; participation must add value. It is not enough to have a certain price or a certain quality. What must be analyzed is the role that this participation plays in the international chain of the international buyer and how it helps the final product obtain a higher market value.

- b. Incorporation of the country in the configuration of global chains. Another aspect to take into account is the fact that the global supply chain strategy is part of the global strategy of multinational corporations. These corporations require that the management of their supply chains be integrated into their plans to achieve business effectiveness and efficiency. Supply chain analysis and planning have transcended their traditional operational position to become crucial at the tactical and strategic levels. The supply chain has to be defined simultaneously with the products and services that the corporation wishes to develop and, from the global perspective, with the marketing strategy, the countries in which the business will expand and the tactics for facing competition in each market. On the other hand, countries participating in these global chains must be aware that they not only compete based on their products or services but also based on all the infrastructure required to join the chains. Transports, ports, procedures, technology and taxes are part of this competition.
- c. Creation of a global integration policy. In the definition of supply chain management, the key concept is the integration of the complete system in all its aspects. This integration must cover materials, information, money and decisions. Therefore, it is vital to review what integration is and discuss how this characteristic can be achieved in the operation of a company and a multinational corporation. Efficiently achieving the goal of integration is basically the reason why the supply chain must be managed. Thinking comprehensively is not a natural process. From the time we learn to reason, life teaches us to divide the whole; it is believed that if a large job is divided into parts and each of these is done efficiently, a good solution to the problem has been secured. In routine tasks at home and in school, the idea of dividing up activities and solving each one in a focused and efficient way is highlighted. In terms of management, we are taught to conduct basic operations. There is no approach that is more wrong, especially in business. While each person responsible for the processes and functions into which a supply chain can be divided may independently perform their work in the best way, this approach will soon lead the organization to a state of inefficiency and lack of coordination. This simplistic approach neglects the tactics and strategy of systems. The aim is to ensure that the actions of any company operator automatically respond to the policies that the general manager has laid out and that the decisions of intermediate officers are integrated into the company strategy. This is a difficult task that must be planned and managed specifically. People have to learn to think about integration. Just as a company has to integrate the decisions of all its personnel, a country must also think about the integration of the decisions of all participants in its export

chains. The participating country is part of a global chain, and the value of this participation depends on the contribution that each participant makes to the total system. This value creation involves working in coordination to ensure the success of the global chain rather than to maximize the success of each individual element. Pursuing individual success—the object of intense focus of many business policies—will bring only provisional satisfaction that sooner or later will end in the exclusion of the local chain from international chains. This fact is demonstrated with the developed model. The free competition approach applies to business chains, not individual companies. In future markets, competition among isolated companies will no longer be seen but rather will be between supply chains formed by groups of companies coordinated to satisfy the needs of their final customers.

4.2 Local business approach

To incorporate these criteria, a change in the mentality of local companies and governments is necessary. It has already been explained that the existence of global supply chains formed by many companies with geographical locations across the world is increasingly important in the field of foreign trade. This development must be based on the following aspects of the local business sector and government policies.

- A changing orientation within companies: To join the new integrated management models, companies participating in the chain must move from a product orientation to a market orientation. This means that the "in the product" approach, whereby many companies care only about the products that they can offer and their capabilities without thinking about the consumer market, must move to the "product market" approach, analyzing the needs of final customers and the corresponding production levels. Thus, instead of maximizing production, companies should focus on maximizing sustainable profitability over time; that is, operational planning should move to strategic and tactical planning.
- A change of objective within companies: Planning objectives must shift from the immediate profitability of the company to the sustainable development of the business chain. The reference model has as its objective the profit and sustainable development of the global chain and not that of a particular company. A general optimum must be found that involves all relevant dimensions—economic, social and environmental—and that goes beyond optimization of particular dimensions. In the application to the coffee export chain, the global profitability of the chain is maximized, but the SKUs are defined in terms of social and environmental aspects.
- Own perspective in the model: The approach must take the perspective of local supply companies. All published analyses of global supply chains are typical of the large markets of the developed world. In the provider-buyer relationship, the focus has been on the perspective of the buyer. The analysis conducted here takes the other perspective, and some recommendations that emerge from it are very different.

- Integrated supply and demand planning: In the business environment, the great shift from supply planning to integrated supply and demand planning is already underway. The advantages of this approach are very clear, and it must be extended to global chains. It is clear that what cannot be sold must not be produced, but it must also be understood that there are tools, such as the price factor, to manage demand for the producer's benefit. These aspects are highlighted in the explanation of the developed tactical planning system.
- Use of analytical tools: The complexity of corporate supply chains is such that supply chain models have to be implemented through the use of properly designed computerized tools. In the case of global supply chains, there is the same need, and it is essential to create a computer system to support sustainable development models by taking advantage of the large amount of information currently available. The framework in which the plan is developed explains this relationship between information and processing.
- Capacity for integrated decisions: One of the anticipated disadvantages in reaching the proposed goals is the difficulty in coming to global decisions in the group of companies that belong to an export chain. This is a cultural change in which the catalytic medium must be facilitated by business associations or by the government. Regulatory policies should be oriented towards this goal, which will support the country's sustainable progress in export markets.

5. Structure of the global coffee export chain

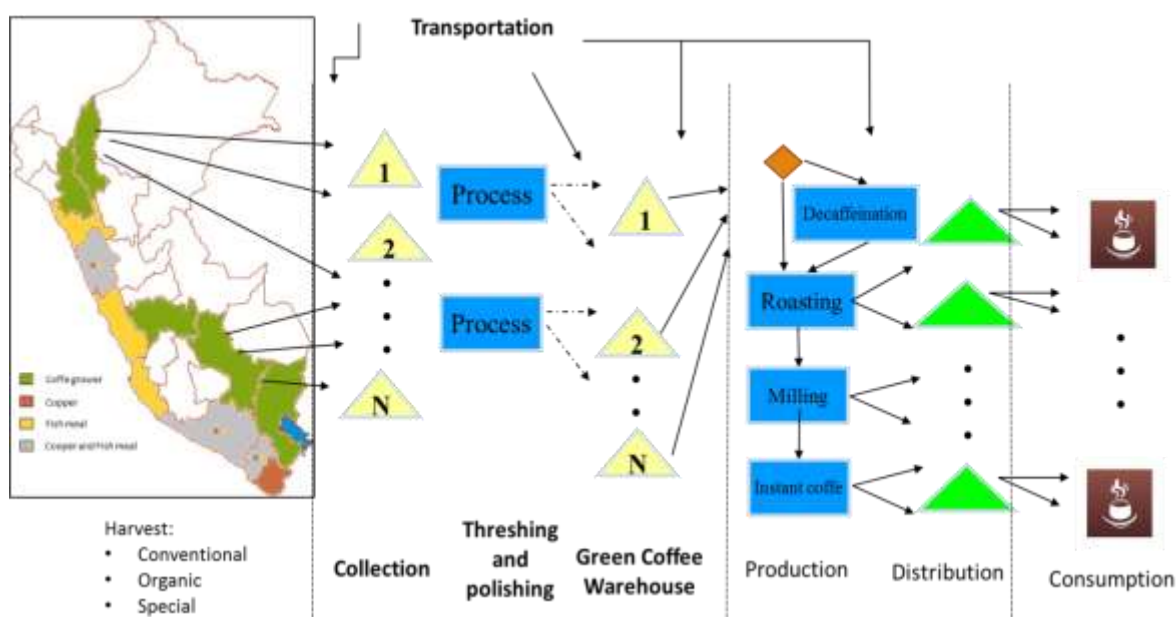
To demonstrate the feasibility of our approach, the insertion of Peruvian coffee export chains into global supply chains is modeled. Figure 2 shows a graphic summary of the global coffee supply chain. Peruvian coffee areas are shown on the map in green, with highlights of the northern, central, Cuzco and Puno clusters.

The type of coffee is defined in the agricultural stage of the chain based on a series of conditions of fertilizer type and care in the preharvest, harvest and postharvest phases. These types have been simplified into three categories: standard or conventional, organic and special. Collection is carried out by farmers' cooperatives or by private companies competing to acquire the corresponding harvests based on price or financing, which is so necessary for small farmers. Contracts are often elaborated that may help farmers with liquidity but may commit them to prices that are not always favorable. Threshing and polishing are the main processes that prepare the green coffee bean, which is the main SKU, for export. These processes are carried out by cooperative plants, by private companies themselves or by specialized companies through outsourcing. The green bean is a commodity and is valued at the New York price. Organic status yields a premium over the international value, and there are a variety of certifications recognizing the quality of the coffee. Certifications from Fairtrade Labelling Organizations International impose universal standards for environmental protection that have become quite widespread, allowing some Peruvian producers to obtain clear advantages with special prizes for their organic beans.

Prices of coffees categorized as special are not determined by the commodity price and are subject to direct negotiation with the buyer.

Figure 2

Structure of the global coffee supply chain



Source: Own elaboration.

Before roasting the coffee to produce the SKU for mass consumption, the producer has to decide whether to use the decaffeination process. Demand for decaffeinated coffee is growing worldwide. Regular or decaffeinated green beans are roasted, a process in which the coffee acquires all its recognized characteristics of taste and smell. After roasting, the coffee can be packed and sold in whole bean or ground form to satisfy the taste of the consumer. An SKU that requires an additional process and for which demand is also increasing is soluble or instant coffee. Currently, there is no capacity for this process in Peru, although the technology is relatively simple and the literature on this specialty is widely disseminated.

More than 99% of Peruvian exports are green coffee beans in bags and are aimed at producers on all continents, especially the United States and Europe. There are very few exports of roasted and packaged coffee. The incursion of Peruvian companies into roasting and packaging has been directed almost entirely at the domestic market. The reasons for this are not entirely clear. Some arguments purport that because of technology and economies of scale, the costs of roasting and packaging in Peru are very high, although this can be debated, taking into account that the technology required is not advanced. It is qualitatively held that the future prospects for exporting roasted and packaged coffee from Peru will center on high-quality grains and Latin American export destinations. Identification of the participants and the mapping of the green coffee export

chain, in terms of both supply and demand, with the associated costs and average prices, is shown below so that results that corroborate or contradict these hypotheses can be evaluated quantitatively. It was impossible to include the export chain of roasted coffees in our model: given the almost negligible export of these products in Peru, it was not possible to find sufficient information.

5.1 Information sources

Three data-generating agents, which guarantee a permanent flow of information to the model, are identified:

- The Ministry of Agriculture and Irrigation
- Customs
- Various institutions

The Ministry of Agriculture and Irrigation is one of the institutions that provides the most information in the agricultural stage. The project takes as a reference the agrarian census of 2012 as well as other statistics generated by this ministry.

The customs agency is another of the institutions that generates relevant information that is used in the model in the distribution and consumption stage. The researchers obtained access to the customs database through Veritrade, an export and import data administrative system that is available in the library of the University of Lima.

Various institutions, such as the National Coffee Board and second-tier cooperatives, among others, have studies providing cross-cutting information that contributes to some information requirements of the model.

The information must enter the model in a structured manner, so it is important to make some changes to the original data, considering that the source must be stable and constantly updated to guarantee the flow of reliable information, which contributes to the decision support capability of the model.

6. Tactical planning system

Supply chain management (SCM) and pricing and revenue management (PRM) systems are the pillars of business management models developed in recent years. The successes achieved are countless, and the academic and commercial development put into them has been abundant. In a very summarized way, SCM systems allow management of the distribution, manufacture and supply of a company with the objective of satisfying demand at a desired service level and at the lowest possible operating cost. Demand is considered exogenous to the system. PRM systems maximize profitability based on available capacity through market segmentation by optimizing prices and the allocation of the products that each segment must receive. Capacity is taken as given

and known. SCM systems are the responsibility of the operations area and PRM systems of the commercial and marketing areas. The proposal simultaneously integrates optimization of the supply side with that of the demand side to achieve greater profitability growth. This is the conceptual basis on which the tactical planning system is developed for the integration of the coffee export chain into global supply chains. The developed model is basically tactical, but through the use of scenarios, it also allows us to respond to strategic objectives. The extension of these concepts to the global chain allows the behavior of each participating company in the export chains to be observed according to the overall objective of the system. The optimal links between suppliers and demand markets are identified to maximize the marginal contribution of the entire export chain for each of the products.

This snapshot of the uses of the tactical planning system will allow governments or business associations to prioritize production based on the profitability of the product or client. Supply can be segmented into categories according to distribution and market channels. If demand exceeds capacity, PRM techniques can determine the optimal mix of prices and market shares to fill this demand with maximum profitability. When demand does not occupy the full capacity, these same techniques can suggest ways to stimulate demand (promotions) to achieve a more efficient relation with supply. Permanent adjustments can be made to prices, market shares and capacity assignments to ensure the highest possible return on capacity. Although these benefits can be tested from a quantitative point of view, achieving them can be difficult to accept from the organizational perspective. The companies that make up export chains are used to making individual decisions aimed at maximizing profits. It will not be easy for the chain to focus on its profits as a whole. Among other ideas, we propose implementing incentives and motivation policies based on key results of the tactical planning system. We think that the various government agencies should play an active role in this regard. On the other hand, government investments must be supported by strategic decisions recommended by the tactical planner after the corresponding analysis is conducted.

The proposed system demonstrates that the existing techniques for optimizing supply given demand (SCM) or manipulating demand given a supply capacity (PRM) seem to have a better destination if they are integrated and price decisions are incorporated in the presence of limited capacity, economies of scale, demand seasonality, etc.

6.1. Analytical model

We construct a mathematical analytical model of the described global green coffee supply chain. Below is a detailed description of the mathematical model and, most importantly, an analysis of the results of its application. The solution of the mathematical model is obtained with open-source resources provided by the Technical University of Wildau in Germany and the University of Auckland in New Zealand. The adjustments that the model required to be solved were kindly provided by professors at both institutions. Thanks to this, the framework proposed in the present

project does not require any commercial license and is free to access for both public and private entities.

The most direct purpose of the model when applied to a global supply chain is to optimize the marginal contribution of supply chain partners by means of demand and capacity utilization decisions. The objective is to decide in which market to commercialize each of the products of an export chain and simultaneously decide how to assign producer capacity among those products to maximize the marginal contribution of all products and all markets in the set. The planning system is supported by a nonlinear mathematical model, but for reasons of lack of data representing price elasticities, we have worked with a linear model in which prices are taken as input data. The purpose is to use this model to support tactical chain decisions in export chains in their static, current version. Among these decisions are the following:

- Which suppliers (farmers) tend to supply each product and in what quantities?
- Which plants fulfill the requirements of each distribution structure?
- What market share maximizes the profitability of the export chain in each segment of the market?
- What average prices should be implemented in each segment? Due to data limitations, this function has not been implemented.
- What distribution structure should each segment address?

All these decisions are made in monthly periods and for a horizon of one or more years. The runs shown for the export chain of coffee consider a twelve-month horizon, but there are no limitations in extending it.

Strategic decisions are usually made at the level of projected outcomes, and the developed model supports them through the construction of scenarios. Each scenario reflects a strategic project, and through comparison of the results with the status quo, it can be determined whether the project in question is profitable. Examples of strategic decisions include the following:

- What would be the effect on profitability and market attention if an additional productive resource (for example, a new agricultural area for the product) were implemented?
- What is the best market incentive plan among the alternatives presented regarding the profitability of the export chain?
- What would be the effect on profitability and market share if the operation were extended to a new country or offered a new export product?
- What potential achievements can be required of an export chain under the given or proposed conditions?

The model incorporates the following concepts:

- The demand of each zone or market segment for each product is calculated based on a potential market, with the possibility of including a price elasticity formula as described in the previous section. In the absence of these formulas, we work with given prices. The idea is that the model can be adapted to any elasticity relationship that develops. If there is no

formula, as is the case with coffee, the model is still valid, with the prices changing from being decision variables to being data.

- If prices respond to an elasticity formula, their possible values fall between a minimum and a maximum.
- Sales are defined based on the share of potential market demand corresponding to each area.
- The material balances for the three inventories in the model are incorporated: materials in plants, finished products in plants and finished products in distributors.
- Each of the three stores corresponding to the three inventories is restricted based on space capacities.
- The quantity of purchases for each supplier and material is restricted based on monthly capacity (this refers to the hectares sown, as used by the planner, and is restricted based on the total hectares available in the agricultural area).
- The hours used for each resource in each month are restricted based on available hours.
- The total amount to be distributed in each area is restricted based on unit capacity.

The objective of the model is to maximize the present value of the flow of monthly marginal contributions. The monthly marginal contribution is calculated as the difference between income from sales and total costs, that is, purchases (farm cost), transport costs, manufacturing (threshing), distribution and inventories.

6.2. Prototype data for the coffee export chain

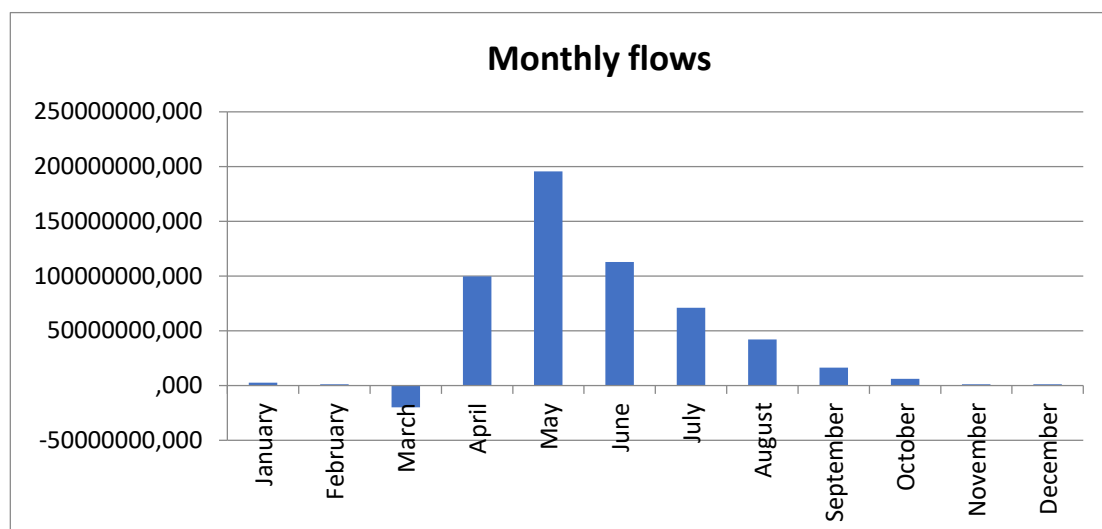
The choice of the coffee export chain was made after a complete analysis of all export chains in Peru. The selection criteria were industry maturity, representativeness and scope. Coffee is a mature export product with clear representativeness of the agricultural sector (it is the agricultural product that makes the highest contribution to GDP) and with a national scope. The data considered in the planning system for the green coffee export chain are basically those explained in the previous sections, except for some small variations. The exporters were summed up to the thirty with the highest market shares. The types of coffee were simplified into three categories: standard or conventional, organic and special. Potential demand was estimated based on the exports in each category and qualitative aspects of each importing country. Annual exports were estimated at 177,788 tons of coffee, mainly of the conventional and organic varieties. Special coffees have a very small market share and will be left out of the next analysis. The sale prices were estimated as average prices of all exports and converted into local currency (*soles*). The cost per hectare was derived based on the farm price of each agricultural area multiplied by the corresponding yield. Finally, the capacity of each agricultural area was estimated based on the reported data and the corresponding potential. With all these data plus those discussed in the previous sections, the inputs of the tactical planning system were loaded and the mathematical model run to obtain the results that are described and explained below.

6.3. Results of the planning system for the coffee export chain

The objective function of the tactical planning system is to maximize the present value of the marginal contribution of all the periods, which yields an amount of \$ / . 505,371,000. The monthly values shown in Figure 3 clearly show the seasonal behavior of this product and the need for financing, which is typical of agricultural products.

Figure 3

Optimal marginal contribution

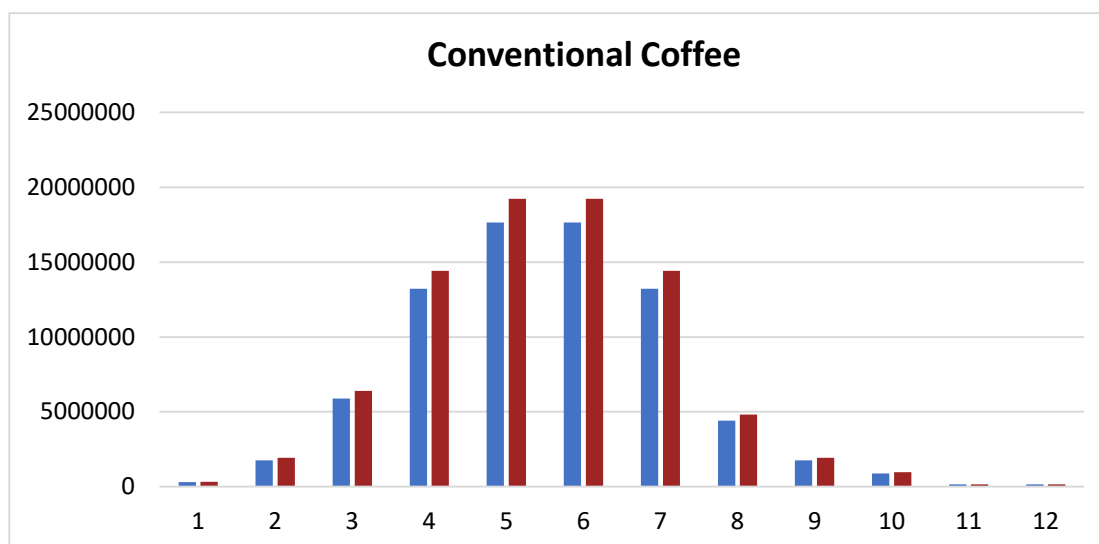


Source: Own elaboration.

In the analysis of this solution, the following observations can be highlighted:

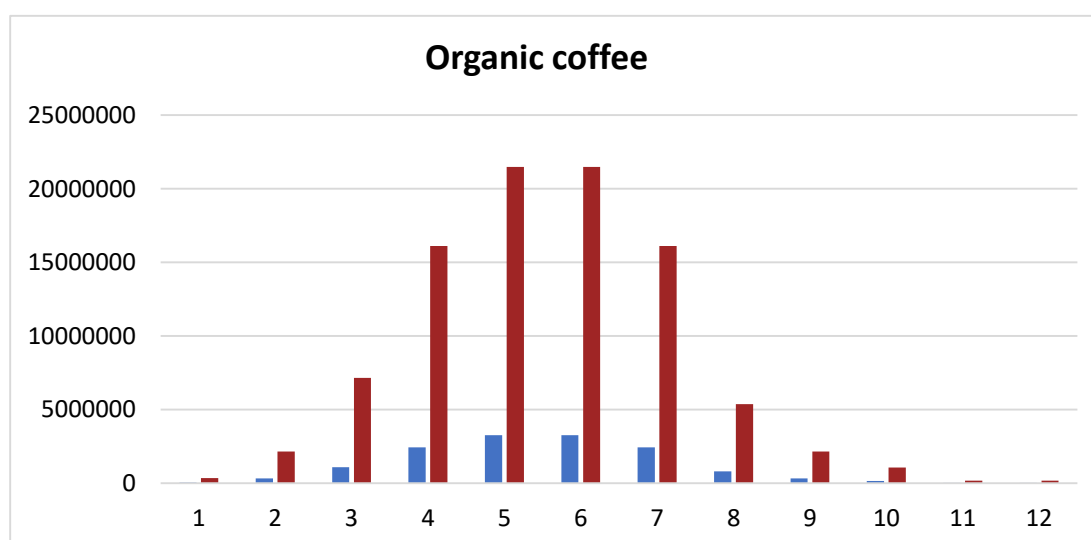
- The revenues correspond to total sales of 91,286 tons per year, leaving 86,502 tons of the estimated demand not met. A deeper analysis of this unmet demand reveals that for conventional coffee, almost all of the demand is filled, as shown in Figure 4. Colombia's demand, at 6,915 tons, should not be filled, given the lack of profitability due to the very low price. For organic coffee, most of the estimated demand, 79,587 tons, is not filled, as shown in Figure 6. The reasons are explained in the following points.

Figure 4

Sales vs Demand for Conventional Coffee

Source: Own elaboration.

Figure 5

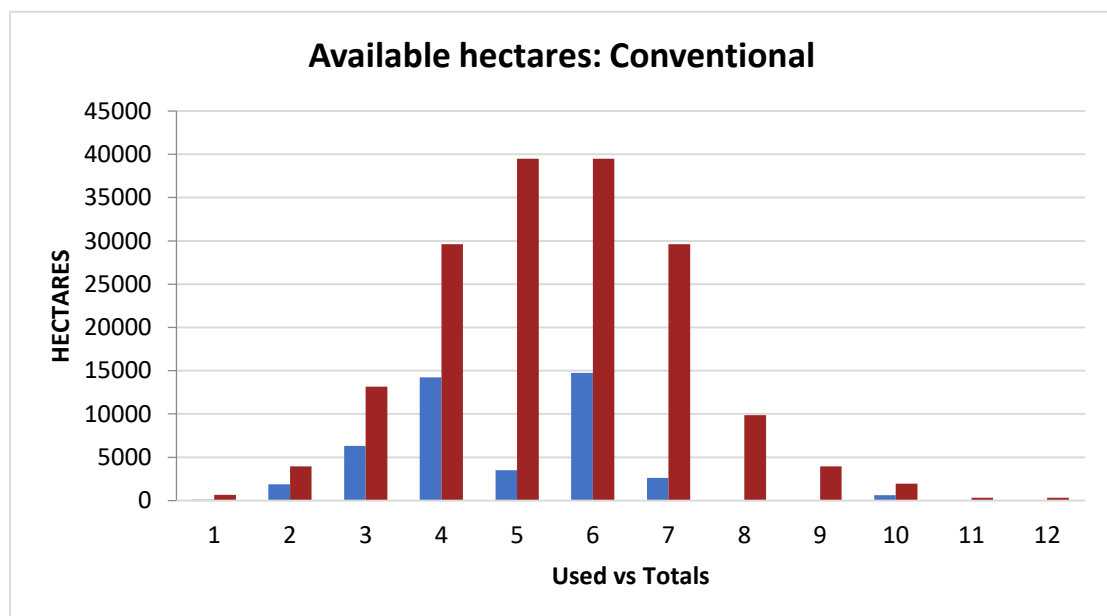
Sales vs Demand for Organic Coffee

Source: Own elaboration.

- The reason why demand for organic coffee is not met is that there is no capacity in the agricultural areas for this product. Looking at Figure 6, we can see that 360,216 hectares of conventional green coffee are not used for the proposed solution because there is no market for this product other than the Colombian market, whose demand is not profitable for any export chain participants to fill at the price offered and thus should not be filled (although in fact it is). As supply is greater than demand, the planner chooses to deploy conventional coffee suppliers for the markets that offer the highest profitability. Less profitable agricultural areas are not used.

Figure 6

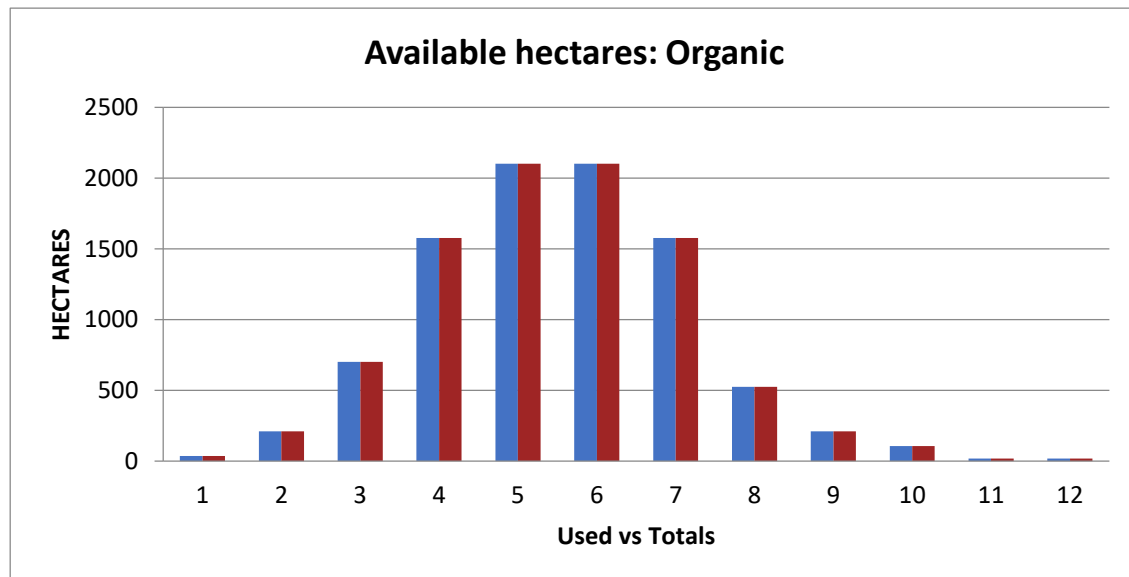
Hectares Used vs Total Available Area for Conventional Coffee



Source: Own elaboration.

- For organic coffee, the opposite occurs. Demand is greater than the total supply of agricultural areas. All the hectares offered are used, as shown in Figure 7, and only 15% of the demand is met. The planner selects the markets and the producers that generate the highest profitability.

Figure 7

Hectares Used vs Totals for Organic Coffee

Source: Own elaboration.

7. Conclusions

The main conclusions obtained during the investigation are as follows:

- We construct a decision model that, through information processing, allows us to support the decisions required within a tactical planning system that integrates the export chains of an emerging country into global supply chains.
- It is possible to find and structure the data required by the decision model with information available from various sources.
- A framework is developed so that the coffee export chain prototype can be replicated in any other export or local consumption chain.
- From the application of the tactical planning system to the coffee export chain of Peru, the following conclusions are obtained:
 - The hectares dedicated to conventional coffee are excessive for the corresponding market; conversely, those dedicated to organic coffee are scarce, and the estimated demand cannot be covered despite the market segment being profitable.
 - Some demand, specifically that of Colombia, is at purchase prices so low that it is not profitable to fill.

- Some agricultural areas must migrate to organic coffee since with the current yields on conventional coffee, the areas are out of market.
- These conclusions may require further analysis due to the rust plague that is affecting many agricultural areas. The plantations that are most resistant to rust are those of robusta coffee, which is related to conventional rather than organic coffee. The opinion of agricultural experts is required in this aspect.

8. Recommendations

The recommendations that can be drawn from the project are as follows:

- A body of entrepreneurs knowledgeable about the supply chain is required to analyze its definition and sizing. This analysis required considerable effort to complete in the case of coffee.
- The structuring and modeling of a new chain (or chains) must be done by the research team to quickly obtain valid results since adjustments to the model and data structure may be required.
- In the case of Peru, it is possible to extend the export chain prototypes to the fish meal and copper sectors to fully demonstrate that the proposed framework is feasible and is a modern, effective and efficient tool for governments to use for the productive planning of the country.
- Team collaborations should be conducted between researchers and entrepreneurs to draw conclusions and recommendations based on the results. Validation, as the last stage of the framework, requires the participation of experts from each modeled chain.
- Agricultural factors such as the rotation of plantations can be modeled when alternative products that allow greater yields from agricultural land are integrated. In the coffee sector, some of the areas in Peru are reaching the limit of 20 years of planting and producing yields well below those of some competing countries such as Korea.
- International demand should be the subject of a larger study that incorporates relevant data to allow a better estimation of potential demand and a possible estimation of price elasticity.
- These conclusions and recommendations should be used in sectoral policymaking since this type of work provides the public sector with academic support. The suggested evolution in the country's planning processes can only become a reality if the public bodies in charge take the required leadership and sponsor future research.

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Industry 4.0: Costa Rica's State-Of-The-Art in relation to Technology and Value Addition

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Abstract

The main objective of this investigation is to describe the current landscape of Industry 4.0 in Costa Rica. Industry 4.0 is a combination of technologies, such as robotics, big data, the Internet of Things (IoT), and artificial intelligence (AI). Latin America has mostly focused on the development of IoT technology. Costa Rica ranks second in terms of IoT implementation, with a strong focus on environmentally sustainable innovations.

New technologies emerge daily, and the IoT is among these technologies. Thus, after comparing Costa Rica with other countries and regions, there are several areas of opportunity to upscale these revolutionary technologies beyond the IoT. The government of Costa Rica and local businesses should work on a joint roadmap to upskill the population on using these technologies. Additionally, this research provides resources and opportunities for experimentation through design thinking, allowing more innovation creation based on trial and error to find the best solutions to implement to add value.

Keywords

Industry 4.0, technology, value added, Costa Rica.

How to cite this article

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1. Introduction

In 2020, the Covid-19 pandemic challenged worldwide economies, processes, and systems. This unexpected situation introduced the opportunity to challenge the status quo by thinking outside the box and redesigning processes and systems to create a new way of doing things. Traditional business models were tested; thus, there is a need to employ more innovative operating mechanisms that are more sustainable and at the same time guarantee competitive advantages.

According to Eakin & Lemos (2006), the IoT and globalization have imposed unprecedented opportunities and challenges in terms of cultural integration and business model operations. For example, Costa Rica, through a joint venture with Coursera, launched a program to strengthen Industry 4.0 skills. The long-term outcome of this training is that it will allow the economy to have skilled people who can rapidly adapt to unforeseen situations. These are one of many efforts Costa Rica is making in terms of Industry 4.0, although it is necessary to compare these developments and implementations across Latin American regions and other countries leading this revolution such as Germany.

This investigation focused on a descriptive analysis of IoT technology as one of the predominant industries, more maturely implemented technology in Costa Rica; and contrasted this against Artificial Intelligence (AI) technology that is nonexistent in Costa Rica. With the current trends and advancements in technology, AI will soon be implemented in the country. The maturity assessment identified the strengths and weaknesses in Costa Rica's current landscape. Opportunity areas should be addressed through multiple years of roadmaps in which the government and local businesses work together to understand, develop and implement these emerging technologies in critical pillars for the country's development, allowing value to be added in the most significant areas.

2. Methodology

Descriptive investigations are those that are designed with the purpose of independently gathering information on a series of related variables and concepts. Descriptive investigations also provide insights into the behavior of variables and concepts. However, they do not necessarily portray direct relationships among variables being studied (Nadler (1967)). Thus, this research is descriptive since its focus is to provide a possible solution to the current landscape of Industry 4.0 technology for Costa Rica and determine how better value could be obtained from this technology to promote sustainable business models and livelihoods.

For all types of research, the methodology that will be used for the study must be established. There are three types of approaches in research processes: qualitative, quantitative, and mixed. Quantitative investigations are those that test hypotheses by applying the [n] data collection format based on mathematical quantification and statistical synthesis to examine theories and explain behavioral patterns (Li et al., 2017).

In contrast, qualitative research aims to analyze and interpret behavioral changes related to the concepts that are under study. However, qualitative studies collect nonnumeric data to interpret

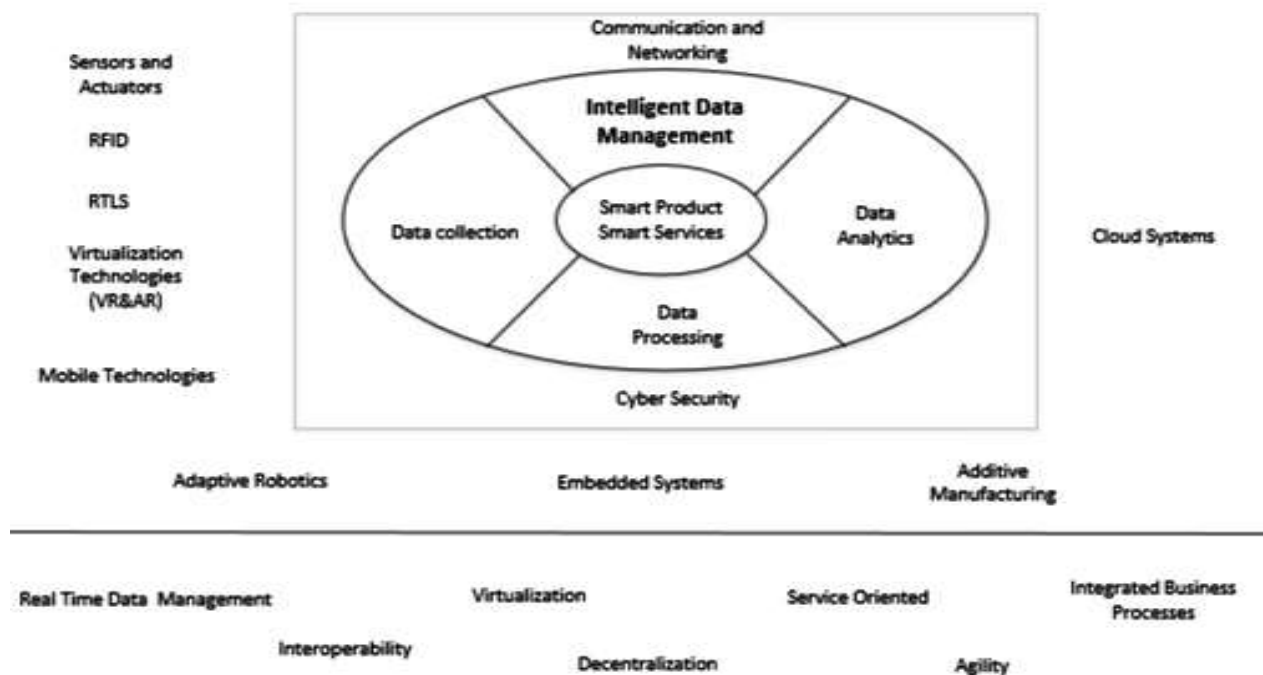
social changes and trends. Finally, the mixed approach is the mixture of both types of research: the qualitative approach and the quantitative approach. For the purposes of this study, a mixed approach will be used. In this way, information and data can be viewed from a more comprehensive point of view (Ritchie et al., 2013).

Due to the nature of the study that was conducted, the type of investigation used here is exploratory. This methodology helps to provide insights into a specific topic under study or a problem. Usually, these topics or problems have very little literature, and exploratory research enables us to set the ground for future research (Fabrigar et al., 1999). In this case, Costa Rica has an unclear perspective regarding Industry 4.0 technology.

3. Conceptual Framework

According to Ustundag & Cevikcan (2018), Industry 4.0 is greatly dependent on the incorporation of active value-creation patterns and systems. This framework also involves a combination of innovative software and systems that interact easily with other economic segments and industry types, ensuring that there is an accessible data transfer and that system performance can be improved based on technological recommendations. In other words, the authors explain that Industry 4.0 integrates production facilities, supply chains and service systems for value added generation.

Figure 1. Supporting technologies of both physical and digital systems



Source: Adapted from Ustundag & Cevikcan (2018), p.19.

There are many technologies that are being covered by Industry 4.0 including the following: big data analytics, autonomous robots (e.g., autonomous driving), the Internet of things, artificial intelligence, 3D printing, virtual reality, and others.

Therefore, an Industry 4.0 framework is needed to guide companies' best practices to adapt to these emerging technologies and obtain the value added in their processes and systems, as demonstrated in Figure 1. The scaling up of these systems is paramount for businesses to enhance their operations in a more sustainable way that affirms their competitive advantages in the market.

Table 1

Existing Industry 4.0 readiness and maturity models

Model Name	Institution/Source	Assessment Approach
IMPULS – Industries 4.0 Readiness (2015)	VDMA, RWTH Aachen, and IW Consult	Assessment in 6 dimensions including 18 items to indicate readiness in 5 levels, and barriers for progressing to the next stage and advice how to overcome them are defined.
Empowered and Implementation Strategy for Industry 4.0 (2016)	Lanza et al.	Assessment of Industry 4.0 maturity as a quick check and part of a process model for realization, gap analyses and toolbox for overcoming maturity-barriers are intended, and no details about items and development process offered.
Industry 4.0/Digital Operations Self Assessment (2016)	Price Waterhouse Coopers	Online self-assessment in 6 dimensions, focus on digital maturity in 4 levels and application as a consulting tool for assessment for a fee is required in 3 of the 6 dimensions, and no details about items and development process offered.
The Connected Enterprise Maturity Model (2014)	Rockwell Automation	Maturity model as part of a five-stage approach to realize Industry 4.0, technology focused assessment in 4 dimensions, and no details about items and development process offered (white paper).
I 4.0 Reifegradmodel (2015)	FH – Oberösterreich	Assessment of maturity in 3 dimensions including 13 items for maturity indication, maturity is assessed in 10 levels, and no details about items and development process offered (development process not finished).

Source: Adapted from Schumacher et al. (2016).

The efficiency and effectiveness of supporting technologies applied to scale up IoT will depend on the maturity model used, as shown in Table 1. According to Schumacher et al. (2016), maturity models are frequently applied as an innovative instrument to provide theories and measure the level of maturity in an organization. Additionally, they can also be used to establish sequential processes in relation to specific targets and objectives.

Based on research by (Apuy, 2019), Costa Rica has 450 companies that generate 970 jobs related to Industry 4.0 technologies. The most relevant areas of participation are cloud computing, big data, the Internet of things, artificial intelligence, and robotic process automation.

Additionally, Industry 4.0 technologies can be explained as follows, according to Javaid et al. (2020):

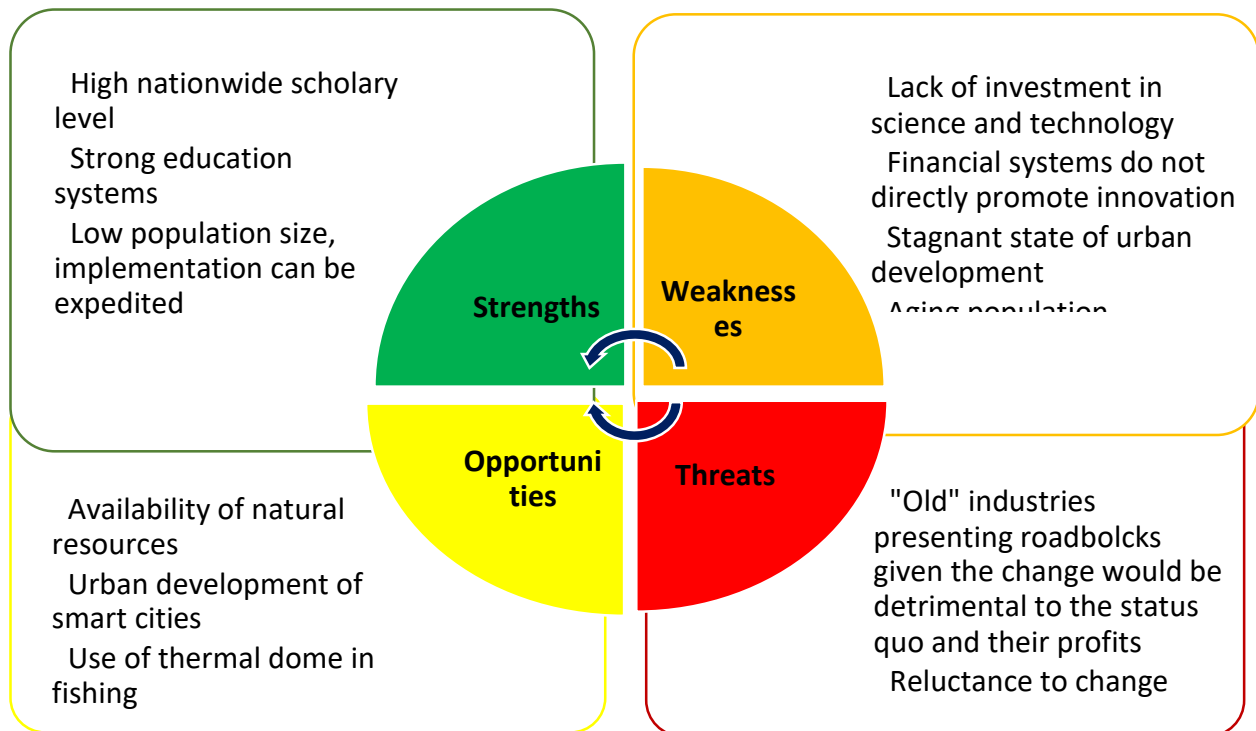
- **Artificial intelligence:** AI is an application, such as machine learning, computer vision and natural language processing, that can instruct computers to use models based on big data for recognizing, explaining, and predicting the pattern.
- **Internet of Things:** The Internet of Things comprises data collection, transfer, analytics, and storage. Data collection is performed with the help of sensors incorporated in mobile phones, robots, etc. Then, the collected data are sent to the central cloud server for analytics and decision making.
- **Virtual reality:** Virtual reality is a digital technology that provides a simulated experience that is almost the same or different from the working world.
- **Cloud computing:** Cloud computing is a digital technology that involves the delivery of computer system resources, such as servers, storage, databases, networking, and intelligence, over the Internet.
- **Autonomous robot:** An autonomous robot can be used to conduct tasks without the influence of any external agency.
- **Biosensors:** Biosensors are used for the conversion of biological signals into electrical signals. Some of the essential types of biosensors are optical, thermal, piezoelectric, and electrochemical biosensors.

4. Results

4.1 SWOT analysis for Industry 4.0 development in Costa Rica

Costa Rica, like most other developing countries, presents a series of strengths, weaknesses, opportunities and threats regarding the implementation and development of Industry 4.0, as demonstrated in Figure 2. However, it is ideal to convert weaknesses to strengths and threats to opportunities. This will enable Costa Rica to leverage industry 4.0 more, in addition to massive investments and favorable government policies that promote the sustainable development of technologies.

Figure 2

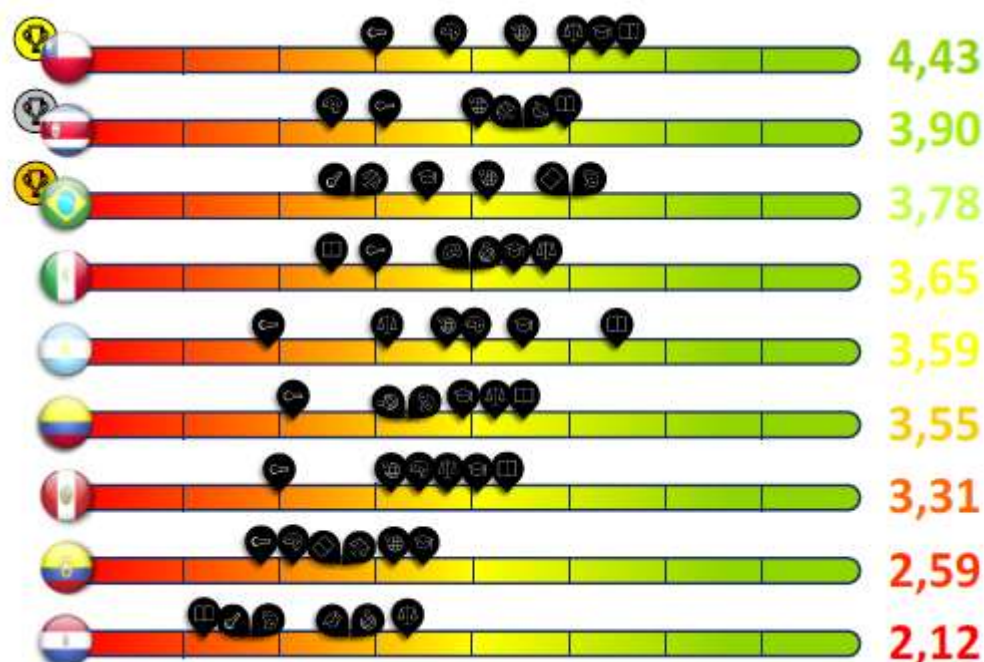
SWOT analysis for Industry 4.0 development in Costa Rica

Source: Own elaboration.

4.2 Descriptive Analysis - IoT in Costa Rica

Since 2018, the Deloitte company and the Center for Telecommunications Studies of Latin America have conducted a study in the region to determine the implementation of the IoT for the business sector in Latin America. The results of the study indicate that Costa Rica is the second best positioned country in Latin America for the implementation of solutions based on the IoT. Chile is positioned as number one in the region, as demonstrated in Figure 3. In addition, the main risk detected by the study is the existence of a weakness in the capacity to innovate (Mendoza P. & Cuellar, 2020 and Deloitte, 2018).

Figure 3

Degree of IoT adoption in Latin American countries

Source: Adapted from Deloitte (2018).

The IoT should be an enhancer for business development that will allow the growth and optimization of processes, ensuring the continuity of operations and profitability during the current financial and political instability. It is also important to train the population in IoT in addition to incentivizing small businesses to implement innovative technologies in their business models. However, for the country to improve itself from the 4th Industrial Revolution and sustainable development, new forms of work must be developed and implemented through new skills profiles, new business and service models, and new technological and organizational culture models.

Nevertheless, small-scale fishing is not a segment that has to be separate from technology. Those engaged in small-scale fishing have been impacted by the economic consequences of the global pandemic, and therefore investments in technology to optimize fishing are necessary. It is through the implementation of thermal dome fishing technologies that fishermen's incomes have been sufficient for their families.

Furthermore, thermal dome fishing technology was developed by students from "Tecnológico de Costa Rica" University who developed a project related to the IoT, the Narwix project. The project consists of the creation of devices called Diglos, which will allow the transmission of data between them and act as Wi-Fi routers for underwater activities, including research or aquaculture. The network can be public and accessible to those who require it (Tec Emprede Lab, 2019). These

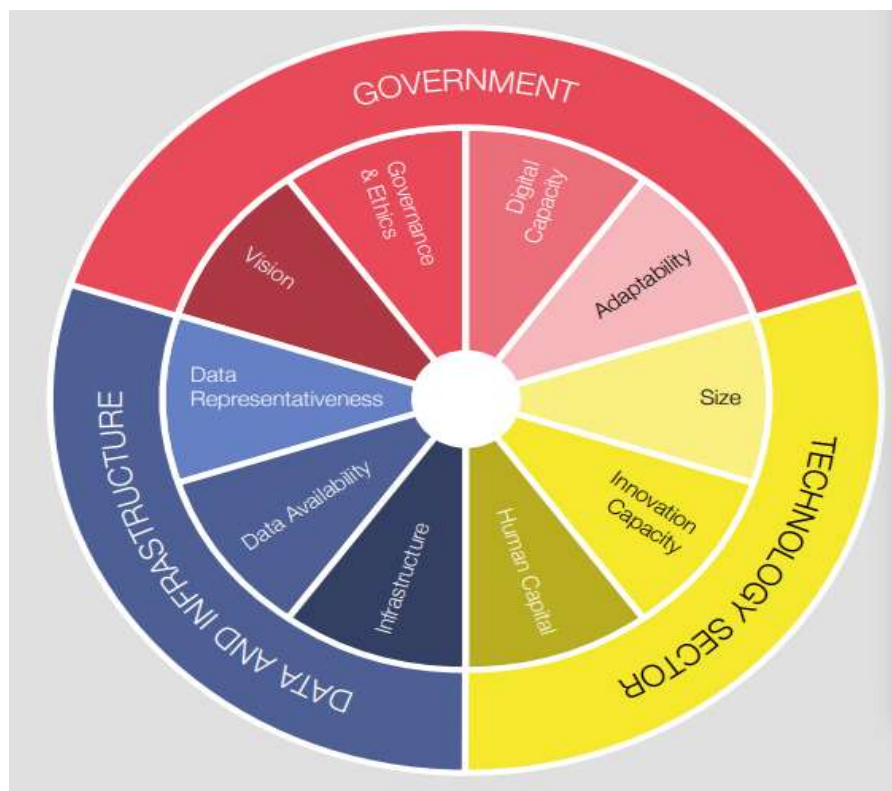
devices allow data to be transmitted in real time and can even remotely turn on equipment, collect and monitor data supplied by sensors and maintain communication between equipment located at sea and equipment located on land.

4.3 Comparative Analysis - AI Readiness

In October 2020, Oxford Insights published the AI Readiness Index, which ranked Costa Rica 78 of 172. Costa Rica is part of the lowest-scoring regions on average. The goal of the AI Readiness Index is to answer the question of how governments can position themselves to take advantage of this AI-powered transformation. According to Eleanor et al. (2020), this index should be used to compare the current state of government AI readiness in countries and regions across the globe, and the process is as shown in Figure 4.

Figure 4

Pillars and dimensions of the Government AI Readiness Index



Source: Adapted from Eleanor et al. (2020).

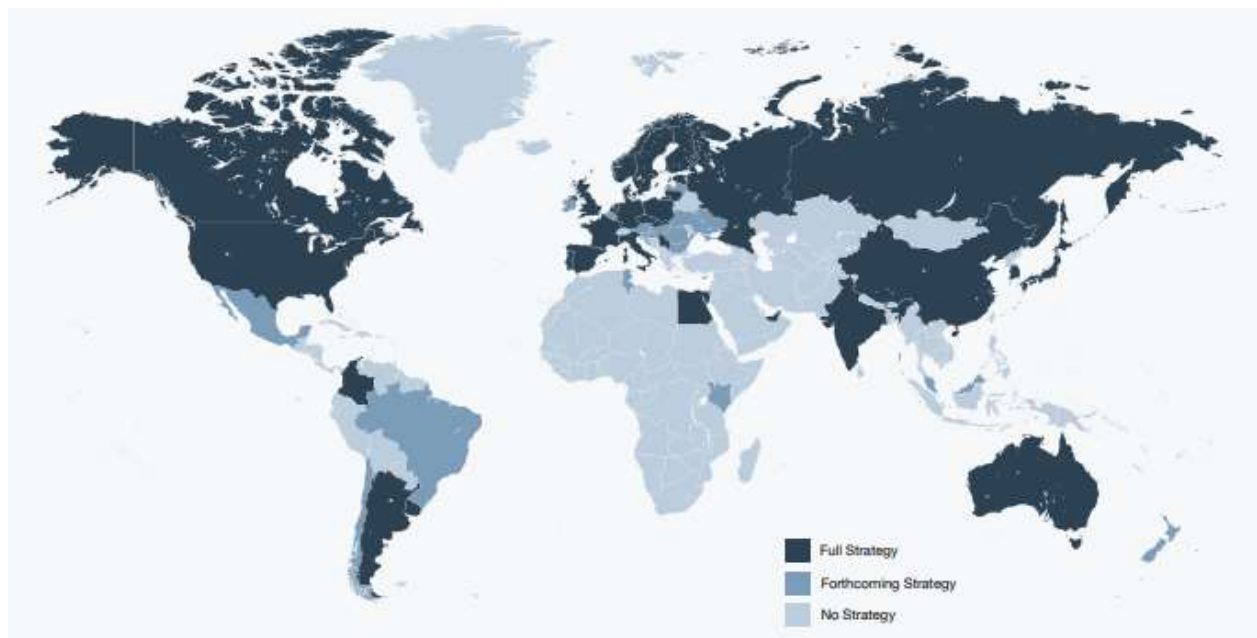
5. Discussion

Based on Oxford Insights by Eleanor et al. (2020), the United States of America is ranked the highest; and the remainder of top-five ranking is European countries including the UK, Finland, Germany and Sweden. This also shows that Western Europe and North America have advanced technologies and AI implementation not only in their business models but also as a way of life.

Regarding the United States, one of the findings is that Silicon Valley is making the difference by constantly innovating with cutting edge technology. In addition, the study of Oxford Insights attributes the good results for Western Europe to the high concentration of national AI strategies, supported by the European Union, as shown in Figure 5.

Figure 5

National AI Strategies in the 2020 Government AI Readiness Index



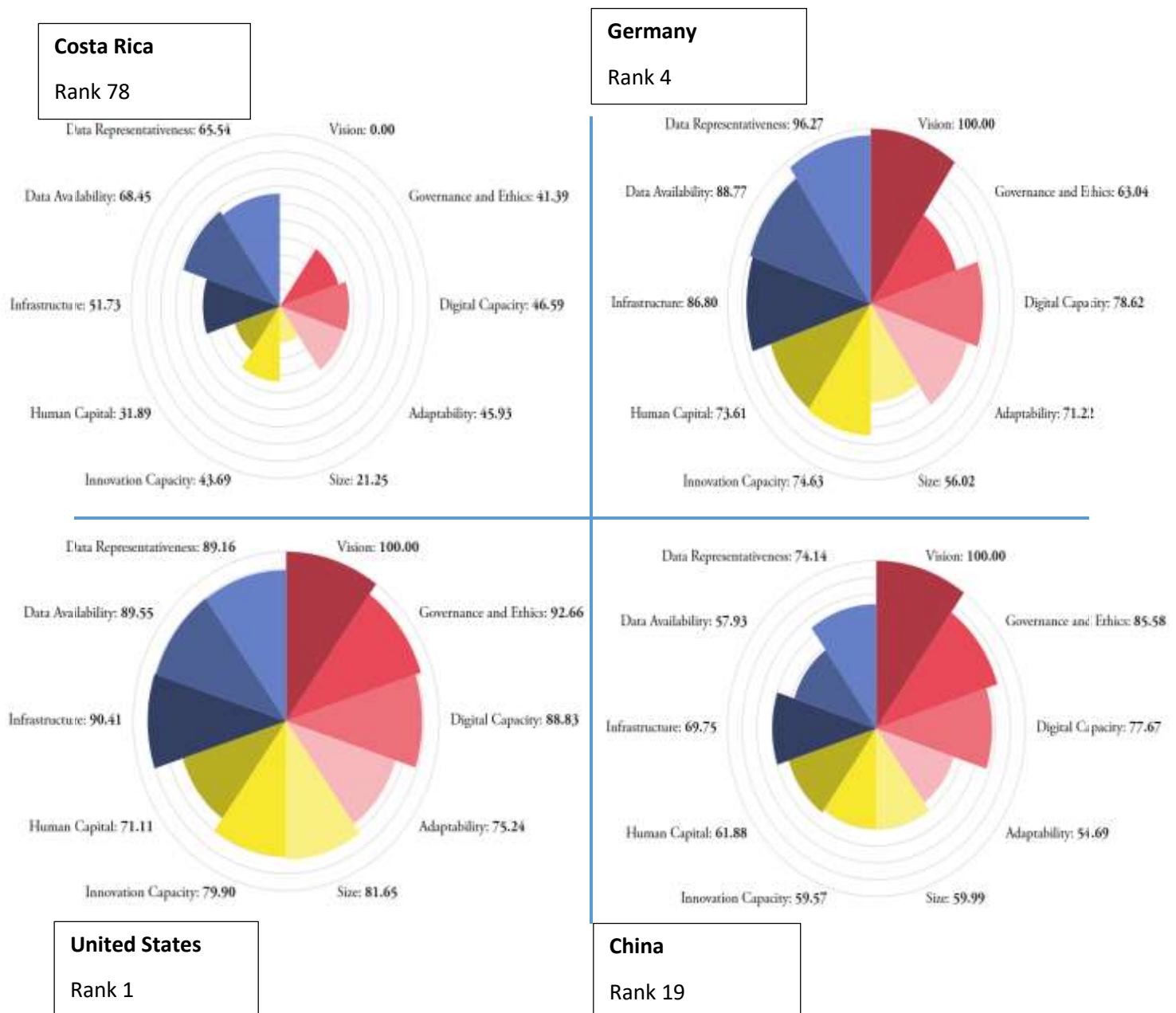
Source: Adapted from Eleanor et al. (2020).

One of the largest surprises resulting from this study is China, which ranked 19th. The Oxford Insights explained that this result is because the research index measured the capacities and aiding features necessary for a government to position itself for AI operations. However, the methodology used does not measure the actual operations. China has prioritized its operations by enacting its “Next, Generation Artificial Intelligence Development Plan”. Consequently, China is investing heavily in its capacity compared to the rest of other countries with high scores for readiness. However, it has not yet utilized its optimal readiness for capacity changes (Eleanor et al., 2020).

Based on the national AI strategies, Costa Rica was identified as a country with no strategy at the national level, which means that between the government, local industries, and others, there is no common roadmap to build AI technology together. This finding is supported by a zero score in the “vision” dimension. Costa Rica requires innovative measures to prepare its economy and readiness, especially in terms of vision and human capital investments, as shown in Figure 6.

Figure 6

Comparison analysis AI Readiness

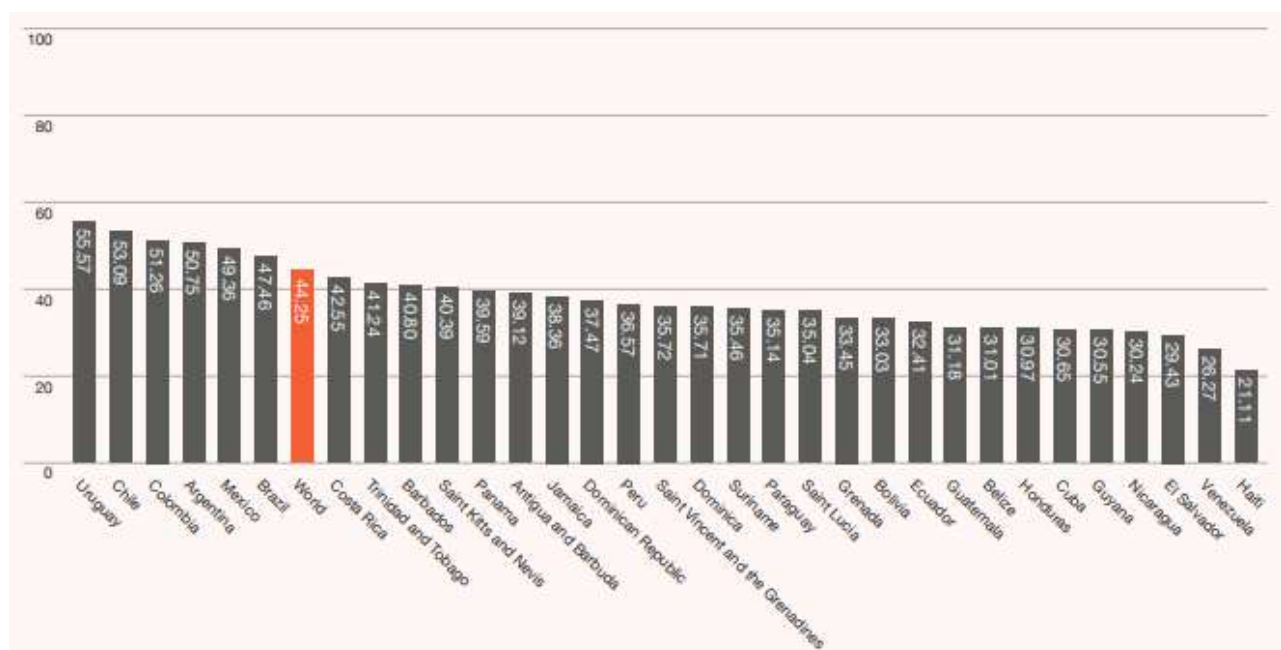


Source: Adapted from Oxford Insights by Eleanor et al. (2020).

The greatest strength for Costa Rica is in terms of data representatives and data availability, where Costa Rica does not lead but obtained a good score in comparison with countries such as the United States, Germany, and China. However, this good position in these dimensions is not helpful due to the large gap in other dimensions such as infrastructure, human capital, adaptability, and others. Another important fact is that compared to Latin America and the Caribbean region, Costa Rica ranks number 7, but we are below the average worldwide, as shown in Figure 7.

Figure 7

Latin America and Caribbean Index Scored



Source: Adapted from (Eleanor et al., 2020)

6. Conclusions

As a result of analyzing the current landscape in CR, technology and value addition, Industry 4.0 is a necessary initiative. Most of the implementations are led by entrepreneurs, and every day increasingly more entrepreneurs demand the development of these technologies.

Although the availability of data and technology does not guarantee the ability to exploit available current infrastructure, government assistance is required to train the population and aid in technology issues to identify and adopt best practices.

The viability of technology implementation projects depends on investment opportunities and feasibility. Costa Rica does not guarantee or provide specific technology investment programs to entrepreneurs, and most initiatives are led by local companies.

It is advisable for entrepreneurs to understand the real needs of certain sectors (such as small-scale fishermen) to work on a comprehensive solution. This will not only improve productivity but also foster the development of an inclusive economy because small-scale fishermen are not included in most national development strategies. High investment and emphasis is directed towards tourism as a prime national economic activity.

7. Recommendations

The strategic plan for Costa Rica to take advantage and maximize the topic of Industry 4.0 needs to be multitiered and comprehensive. There is a distinct need for all interested parties to collaborate and work jointly in developing the proper environment for which all the aspects of Industry 4.0 can develop and help foster growth.

It is important that Costa Rica takes advantage of its strengths such as the educational attainment of their population and the strong education system. These two aspects specifically should be a cornerstone for their plan. Upskilling the existing workforce, be it workers with technical degrees or coursework, would have great benefits for the development of technology in the country and more so to the innovation and improvement of current operations in the country by using Industry 4.0 topics such as the IoT.

Upskilling or reskilling the existing workforce for technologic improvement has benefits for all parties. The workforce receives relevant and useful training and skills; the companies in the country are able to have a more skilled workforce for their development and operations; and the country will benefit given the higher skilled workforce, more industrial activity, more technological advancement, etc.

In addition to building on their strengths, as previously mentioned, it is important not only that existing economic activities and sectors are not pushed aside and forgotten but also that they should be given the tools necessary for them to improve their conditions and maximize their performance.

There are several sectors that would benefit greatly from Industry 4.0. For example, the fishing industry in Costa Rica is mostly comprised of small artisanal fishermen. However, if these fishermen were given tools such as satellite imaging identification of hotspots, meteorological warning systems, and sonar radars, among other tools, they would be able to improve their operations in the short term and be able to compete with foreign fishing operations in the long term. This would allow them to expand their operations and attain increased revenue, which would most surely trickle down to improve the entire economic activity in coastal cities and the population. As this example noted, there are several sectors and populations that, if included in the plan and given the tools to develop and grow, will bring collective gains for Costa Rica's society and economy. All of this will help the country achieve sustainable development, specifically with factors on reducing inequality, decent work and growing the economy, and responsible consumption.

In parallel with the industrial components of the suggested actions for Industry 4.0 development and deployment in Costa Rica is the societal development side. There should be comprehensive

urban development to help with the economic situation of the entire population. For example, topics on smart cities, lower fossil fuel use, sustainable adequate transport, no at-risk population, and fiber optics, among others, are topics that the government should have in mind as essential for the improvement and development of the country. In addition, when we mention the country, it means the entire country not just the greater metropolitan area. There are possibilities to design and develop development hubs across the country, each one centered and taking advantage of each location's strengths.

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Product placement as an efficient marketing tool within the media mix: The case of General Motors and Transformers

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Abstract

Product placement has existed in its most primitive form since the dawn of cinema. Now, due to the saturation of conventional advertising, this technique has reached its zenith, with brands appearing in an environment without competition, as a natural element of the plot. The automotive sector has been present from the beginning and soon understood the expressive possibilities that were offered. General Motors began its journey in the film industry in 1933 following an agreement with Warner. Since then, the General Motors group has had a growing presence in the film industry, which reached its peak in Transformers (2007), an unprecedented type of product placement. It is possible to identify a clear cause-effect relationship in the company's sales, with product placement being an efficient marketing tool within the media mix, as we will show throughout this investigation. The study begins with a historical review of brand placement in North American cinema (1933-2014), then proceeds with a content analysis, following the methodology proposed by Méndiz (2001), of advertising placement in film and a structured interview with Norm Marshall, the director and founding partner of Norm Marshall & Associates, responsible for GM's product placements.

Key words

Brand placement; product placement; North American cinema; General Motors.

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1. Introduction

The advertising technique of product placement, which involves placing brands within fictional environments (primarily audiovisual) as natural elements of the plot (Méndiz, 2001), has existed since the dawn of cinema.

In 1896, as Newel (2005) confirms, the first PP¹ in history appears in the film *Défilé de 8e Batallion* by the Lumiere Brothers, featuring a poster for Sunlight soap, arranged by Francois-Henry Lavanchy Clark, a film producer and sales representative for that company.

Eckert (1978) dates the origin of PP to 1913, in the film *Age of Consent*, in which a poster for Coca-Cola is visible. The author says that it was placed by an advertising agent.

In reality, we would have to move forward in time, to 1945, to encounter the first case confirmed and verified by different researchers, marking the emergence of the technique: *Mildred Pierce* by Michael Curtiz.

According to Nebenzhal and Secunda (1993), the first documented case occurs when the actress Joan Crawford, who played Mildred, drinks Jack Daniel's Bourbon Whiskey (a perfectly recognizable drink) on camera, with a very different use than those mentioned above; it is the first case negotiated and agreed upon in exchange for a financial sum, as part of the brand's advertising strategy.

It was not until 1982 that the technique became fully effective and advertisers understood the possibilities offered by Hollywood. The most famous placement in movie history is the Reese's Pieces brand in Steven Spielberg's *ET*. Elliot, the young protagonist, is able to gain the trust of his alien friend by placing a row of colorful pieces of chocolate candy on the floor, in an attempt to entice ET to return to his home. He succeeds in luring the alien, with the aforementioned candies displayed in the foreground. This scene was a turning point for the Reese's Pieces brand, which increased its sales by approximately 70%. The producers offered this opportunity to the brand following M&M's refusal to be associated with what they considered "that ugly alien."

As Victoria (1999) confirms, from that moment on, we begin to encounter brands in all kinds of movies, but the absence of specific regulations leads to problems, controversies and dissenting opinions expressed by different associations. As a result, advertisers were reluctant to invest in a type of communication that did not offer sufficient guarantees.

To restore the lost credibility of this technique, in 1991, the Entertainment Resources & Marketing Association (ERMA) was created within the Hollywood industry, to establish rules for settling disputes and regulating the PP contract process. The technique thus achieved an agreed-upon standardization and full professional recognition.

Following the creation of the ERMA, the technique soon became a practice that does not require any kind of explanation for consumers, becoming another form of advertising and one just as valid as the others, given that programs charged for it.

¹ Acronym for product placement

From this moment on, PP has been broadly accepted, with brands using it as a stable form of communication. The widespread use of this technique demonstrates the confidence of companies in the ability of PP to connect consumers with their brands.

According to López (2015), product placement increases the awareness of a product by 20% and, combining it with a conventional spot, increases average brand awareness from 47% to 58%; the effectiveness of the placement also depends on the preexisting level of familiarity with the brand.

Consumers are beginning to have more power than brands and, as such, they have revolutionized corporate communication, transforming it into one of proximity, making it possible to create community and restore human relationships in the realm of consumption (Alonso, 2015, p. 78).

González (2016) argues that with the emergence of new means of communication, companies and professionals have begun to use product placement as part of their strategies to promote their brands, products and services. In particular, they seek to understand their potential consumers and their market behaviors and, through them, to identify consumer attitudes toward marketing. This will enable them to develop more accurate and effective advertising strategies.

2. Objectives and methodology

The general objective of this investigation can be summarized as a description and evaluation of product placement as an efficient marketing tool within the communication mix because it is an excellent combination and would complement other media. To this end, we present the case of General Motors and *Transformers* and identify the main strategic lines of action developed.

With regard to the methodology, it was first necessary to consult and analyze bibliographic sources, ranging from books that examine the PP technique to scientific publications in the field of marketing and commercial communication and specialized articles. The main sources are the leading experts in the field, such as Méndiz, Victoria, Baños and Rodríguez.

We have also used content analysis to study how General Motors conveys its values and business philosophy through PP, as well as the subsequent translation into sales. To this end, we analyze the key movie project in which General Motors was involved, i.e., *Transformers* (2007), as confirmed by Norm Marshall for this research.

With regard to the study's temporal and geographic scope, we perform a historical review of placements in North American cinema, beginning in 1933, when the first General Motors placement occurred, until 2014, when the third installment of *Transformers*, which is the most recent high-profile example of placements in Hollywood movies, was released.

Content analysis, according to Berelson (1952), is a research technique that aims to be objective, systematic and quantitative when studying the explicit content of communication. For Bardin (1986), content analysis is a set of methodological instruments applied to what he calls extremely diversified discourses (contents and containers).

The methodology for this content analysis was proposed by Méndiz (2001), a pioneer and the sole researcher to establish a methodology that is universally applicable to placements in any type of film. It is thus considered the most appropriate methodology for the objective of our study, in order to identify how General Motors conveys its brand values in the cinematic environment, defining six variables: four for strictly quantitative analysis and two for partially quantitative/qualitative analysis (3 and 6).

The variables are as follows:

- a. Product.
 - b. Brand: Brand refers to each of the possible commercial names of advertisers that “place” products in television series.
 - c. Type of placement (active, passive, hyperactive and verbal).
 - c.1. Active placement: Active placement refers to the interaction between the product or brand and the actor in the series or movie. There is no appraisal of any kind, although there may be commentary on the product.
 - c.2. Passive placement: The brand is integrated into the set of the series or movie, but there is no interaction between actor and product. This is divided into primary passive (although the actor does not interact with the brand, the brand contributes to the context) and secondary passive (when the brand is an inactive element or a prop).
 - c.3. Hyperactive placement: there is manipulation and interaction between the actor and the brand or product, and this is incorporated as a narrative resource in the script.
 - c.4. Verbal placement: when there is an explicit allusion made by the actors.
 - d. Type of presence (hero, neutral or background shot).
 - d1. Hero shot: Close-up or detailed shot.
 - d2. Neutral shot: The brand is located on the same plane of action as the character.
 - d3. Background shot: The brand is located in the background of the action.
 - e. Duration (expressed in seconds).
 - f. Relationship to the context (defining, natural and artificial placement).
 - f1. Defining placement: The placement contributes to defining the character through a certain degree of symbolism. The brand describes the characters—and vice versa—and establishes a lifestyle.
 - f2. Natural placement: The placement is appropriate and relevant, without being meaningful. The placement is recognized as legitimate and pertinent.
 - f3. Artificial placement: Its relevance to the context is not apparent. It is jarring and out of place, inappropriate and even detrimental to the advertiser.
- Baños and Rodríguez (2003) also confirm that the variables for measuring product placement should be quantitative and qualitative.

Finally, a particularly useful qualitative technique is the structured interview conducted with Norm Marshall, the director and founding partner of Norm Marshall & Associates Entertainment, which has been exclusively responsible for General Motors movie placements since 1999. Contact was first made via email, followed by several telephone interviews in 2016.

3. General Motors and product placement

General Motors first became involved in the film industry in 1933 following an agreement with Warner, but despite this initial agreement, it curtailed its presence in movies until the 1970s, when the first PP agencies and communication groups began to appear.

In 1976, General Motors started working with Vista Group, a hybrid agency specializing in the automotive sector, focusing on movie and television placements. General Motors was its first client and engaged its services to achieve a brand positioning objective and improve the company's image; Vista Group's first success was placement in *Smokey and the Bandit* in 1977.

General Motors also began to work with another agency, Norm Marshall, in 1983, with this agency managing Chevrolet placements. General Motors ceased working with Vista Group in 1999, and Norm Marshall became the exclusive agency for placements for the entire group.

Norm Marshall confirms² that they currently have a large fleet of vehicles available for movies and television and he believes, based on the figures, that they have the highest percentage of exposures/integrations of any automaker.

General Motors intensified its presence in the 1990s, following the standardization of the technique, with *Days of Thunder* (1990), considered to be the first major multimillion-dollar deal between an automotive company and a film production company (Phatton, 1996). In that movie, starring Tom Cruise and Nicole Kidman, the protagonist played a young racecar driver, whose car was a modified Chevrolet Lumina.

Figure 1.

Chevrolet Lumina in *Days of Thunder*



Source: IMCDB

² Telephone interview conducted on 10-25-2016

The Chevrolet division of General Motors invested \$10 million in cars and promotional activities, which required 30 cars.

Norm Marshall, director of the agency and responsible for Chevrolet placement in *Days of Thunder*, stated in the interview that this was the largest placement of cross promotions made by an automotive company to date, with an extensive promotional campaign and a budget that has yet to be invested in any other film, neither in *Bond* by BMW nor in *The Bourne Ultimatum* by Volkswagen nor even in *Transformers*. It is not considered a success, however, as the film did not achieve expected box office numbers.

The next prominent case in the 1990s occurs in 1993, for *Demolition Man*, starring Sylvester Stallone, Wesley Snipes and Sandra Bullock; General Motors placed advanced prototype vehicles valued at €69 million (Gayl, 1993).

The movie is a futuristic action thriller set in the city of Los Angeles in 2032, with a positive vision of the future, in which crime has been eliminated. The vice president of corporate communication for General Motors, Bruce Macdonald, at a reception preceding the General Motors annual meeting, said that the film depicts a bright future for the company, presenting an excellent portrayal of the vitality of General Motors in 2032, and that this is the type of future project in which the brand will be involved, leveraging its corporate resources to make an impression on millions of consumers. The producer, Joe Silver, contacted Vista Group after seeing a photo of the General Motors Ultralite on a magazine cover.

After eight months of negotiations, in 1992, General Motors provided the Warner Bros. production company with 17 prototype vehicles that had already been used in auto shows.

Figure 2

General Motors Ultralite in *Demolition Man*



Source: IMCDB

Another successful placement was the Oldsmobile Silhouette minivan in *Get Shorty* (1995) by Vista Group. Vista Group had to compete against Ford and Chrysler, the latter of which was the number one seller of minivans in the US. Because no other minivan had a door that could open automatically, the scales tipped in favor of General Motors. The movie's success did not translate to an immediate increase in sales; 3,540 units were sold during the first four months of 1996, while 3,946 were sold over that same period in 1995.

Nonetheless, the brand was very satisfied, as Oldsmobile dealers reported receiving constant calls asking about the model as well as visits to the showroom; the brand's main problem with the Silhouette model was that many people were unaware of its existence (Brown, 1996).

According to Vista Group, it is important to ensure that the right car appears in the right movie, from futuristic vehicles to an old GMC, such as Clint Eastwood's car in *The Bridges of Madison County* (1995).

In 1998, the placement of the Pontiac Grand Am in *Lethal Weapon 4* is particularly noteworthy. It is an 8-minute placement, with part of the scene set on a Las Vegas freeway, which had to be blocked off for an entire week. According to Pontiac spokesman Rick Asher, "It was a good opportunity for Pontiac and General Motors because the vehicle was put to the test and passed it like a champ."

This placement focuses on the solid design of the vehicle, and the chase scenes in which it appears reinforce the sound and solid structure. Asher says that they will continue to seek out placements that make sense for their vehicles (Phatton, 1996).

The vehicles used in the chase scenes were later used for promotional purposes. Warner Bros sent one car to Australia and another to Europe for promotional use, and Pontiac sent one and a video to the lobby of the General Motors headquarters in New York (Maynard, 2000).

In 1999, Norm Marshall & Associates, which already managed Chevrolet placements, also took over the Buick, Oldsmobile, Cadillac and Pontiac divisions.

Phil Guarascio, vice president of advertising and corporate marketing at General Motors, confirms that same year that the company was looking to change its types of placement agreements, going even further, to have more control over the movies and scenes and use it as the central part of a spot (Finnigan, 1999).

This is still its policy today, reaching its zenith in *Transformers* (2007), considered an unprecedented type of placement.

After participating in the first installment of the saga and following its success, General Motors was also part of *Transformers 2* (2012) and *Transformers 3* (2014).

3.1 Transformers

Transformers 1 (2007), starring Shia LeBeouf and Megan Fox, was directed by Michael Bay and produced by Steven Spielberg.

It is based on the popular toy brand that was enormously popular in the 1980s and the subject of a successful animated television series.

The plot involves two different species of robots, the Autobots and the Decepticons, who want to take over the world and thus embark on a war, with the young protagonist as the one who can save the world.

The movie was a box-office success, with a budget of \$150 million and a gross of \$710 million, according to data from IMCDB³.

General Motors is considered to have taken PP to another dimension with this movie, as the cars are the true protagonists; they are the heroes.

The “good” robots, responsible for saving the world, called Autobots, transform into General Motors vehicles.

The deal was made with General Motors rather than any other brand because of the preexisting relationship between the movie’s director, Michael Bay, and General Motors. William Morris represents both, and Michael Bay had a previous relationship with General Motors: he had directed two Chevrolet spots. It is thus evident why the scales were tipped toward this brand.

In 2005, Michael Bay visited the General Motors design center in the San Fernando Valley, where he was shown hundreds of Pontiacs, Hummers, Cadillacs and Chevrolets, quickly deciding that the Chevrolet Camaro would play a leading role in the film.

The terms of the contract with the Paramount production company involved supplying 65 vehicles for the movie, worth approximately \$1 million, as well as approximately \$2 million for promotional and marketing campaigns. Michael Bay directed several General Motors spots promoting the film.

The brand has revealed that with this large investment, it was able to achieve its objective of improving sales, at a moment of fierce competition and in an economic crisis (Chang, Newell & Salmon, 2015).

The four cars with leading roles are the Hummer H2, Pontiac Solstice, GMC Topkick, and new Chevrolet Camaro, which did not go on sale until 2009. Two prototypes were created specifically for the movie, providing the perfect opportunity to unveil the Camaro on the big screen. The Chevrolet Camaro become the main *Transformers* character Bumblebee.

This film is aimed particularly at a target audience of young people between 18 and 34 years old, and the brand believes that this film significantly increased the number of visits to dealerships by

³ Internet Movie Cars Database: Online database of automobiles, motorcycles and other motorized vehicles in movies

this customer profile, as it is a similar target to that of the Chevrolet Camaro and *Transformers* (Philip, 2007).

In terms of sales results, Norm Marshall, the director of Marshall & Associates, responsible for GM's placements, says that thanks to its appearance in this film, sales of the Chevrolet Camaro increased by 10% every year, from 2007 to 2017, making it the sales leader in its sector in the US.⁴

In 2009, the Chevrolet Camaro was the leading car in online searches, according to Yahoo!Autos, and in 2010, the Camaro was at the top of the sports car market in the United States, dethroning the Ford Mustang for the first time in 24 years. It continued to lead the industry in 2011, propelled by the launch of the Camaro Convertible. In 2012, the Camaro recorded sales of 40,275 units, compared to 30,206 for the Mustang (Louis, 2013).

3.1.1 Transformers 1 case analysis

Table 1

Content analysis of product placement in *Transformers*

N o.	Product	Brand	PP Type	Shot	Duration	Context
1	Car	Chevrolet Camaro	Hyperactive. The scene revolves around the vehicle, as the protagonist and his father are going to buy a car. The Chevrolet Camaro becomes the center of the action when it is the car chosen by the protagonist.	Hero (7") Neutral (66")	73	Defining
2	Car	Chevrolet Camaro	Hyperactive. Sam, the young protagonist, is getting ready at home and is thrilled to be able to drive his new car. The scene ends with the boy excitedly getting into the car.	Hero (2") Neutral (6")	8	Defining
3	Car	Chevrolet Camaro	Hyperactive and verbal. Hyperactive. Sam drives the car to meet his high school classmates. The car breaks down and stops, and the scene revolves around the car. The hood is opened, and a female is able to fix it, so he gives her a ride on his way home. Verbal. "Hey, bro. That car. It's nice." "Whoa, nice headers. You've got a high-rise double-pump carburetor. That's pretty impressive, Sam. It squirts the fuel in so you can go faster". "Oh, my God. I love my car"	Hero (3") Neutral (238")	252	Defining
4	Car	Chevrolet Camaro	Hyperactive. At night, Sam hears that his car has started and is driving on its own, although	Hero (4") Neutral	9	Defining

⁴ Telephone interview conducted on 10-25-2016

			he believes that there is someone driving the car and it has been stolen. Sam calls the police to report the theft and chases the car on his bike, until it arrives at a junkyard, where the car transforms into a robot. Sam is about to be attacked by dogs when his car saves him.	(5")		
5	Car	Chevrolet Camaro	Hyperactive and verbal. Sam chases the car to the junkyard, meeting the female on the way. Sam is chased by a police car, which transforms into a "bad" robot that asks him about a website and tries to kill him. The Chevrolet invites them to get in. When the female comments on how old the car is, it transforms into a late-model Chevrolet Camaro, and Sam and the female drive off in it. Verbal. "Why, if he's supposed to be, like, this super-advanced robot, does he transform back into this piece-of-crap Camaro?"	Hero (45") Neutral (96)	141	Defining
6	Car	Chevrolet Camaro	Hyperactive. The Chevrolet Camaro takes the protagonists to the place where the rest of the Autobots are going to appear.	Hero (14") Neutral (12") Background (2")	28	Defining
7	Car	Hummer 2	Hyperactive The Autobots come to earth as meteorites. Once they arrive on earth, there is a close-up of one of the Autobots, transformed into a fire engine. A Hummer H2 breaks through a fence to join the rest of the Autobots.	Hero	3	Defining
8	Car	Pontiac	Hyperactive. A Cadillac dealership appears in the foreground, with "Cadillac" in large glowing letters, and a robot begins to smash the letters. The camera focuses on a Pontiac that is prominently displayed in the showroom, placed on top of a rotating elevator, and the car can be seen from all angles. The car begins to come to life before the astonished gaze of a female. Later, all the Autobots are together, and the Pontiac reappears, with a close-up of the side and the tire as well as an aerial view of all the vehicles.	Hero	13	Defining
9	Truck	GMC	Hyperactive. The front of a GMC truck appears, with the letters in the foreground; the truck joins the other Autobots.	Hero	1	Defining
10	Car	Chevrolet Camaro	Hyperactive. The Chevrolet Camaro, with the protagonists inside, goes to meet the other Autobots at a secret location.	Hero (11") Neutral (4")	15	Defining

11	Car	GMC	Hyperactive. The police come to Sam's house to find out where the robots are. The police drive four GMC SUVs, and a chase scene unfolds, with the police chasing the robots in those cars; the GMC logo clearly visible.	Hero (10") Neutral (70")	80	Defining
12	Car	Chevrolet Camaro	Hyperactive. The Chevrolet Camaro chases the police cars because the teenagers are inside, trying to rescue them.	Neutral	5	Defining
13	Car	GMC Topkick, Pontiac and Hummer H2	Hyperactive. The three cars speed to the air base where the Chevrolet Camaro is located	Neutral	2	Defining
14	Car	Chevrolet Camaro	Verbal. "Hey, you want to lay the fate of the world on the kid's Camaro?"	-	3	Defining
15	Car	Chevrolet Camaro	Hyperactive. The Chevrolet Camaro flees with the protagonists and the cube inside.	Hero	13	Defining
16	Car	Pontiac, GMC Topkick, Hummer H2 and Chevrolet Camaro	Hyperactive. The four cars are speeding down the road, fleeing from the Decepticons.	Neutral	7	Defining
17	Car	Pontiac	Hyperactive. Bumblebee is injured, and the Pontiac stars in a chase scene with the Decepticons.	Hero	6	Defining
18	Car	GMC	Hyperactive. Bumblebee is still injured, and Micaela attaches him to a GMC crane to continue fighting; she drives and he shoots.	Hero	6	Defining
19	Car	Chevrolet Camaro	Hyperactive. The final scene shows the protagonists kissing on top of the vehicle while Optimus Prime's voiceover talks about the Autobots remaining on Earth to protect the humans.	Neutral	4	Defining
20	Car	Hummer H2 and GMC Topkick	Hyperactive. The movie ends with a shot of the two vehicles protecting the world.	Neutral	5	Defining

Source: Own.

4. Results

The main results from the content analysis of *Transformers* are that all the General Motors placements are hyperactive because the products are the protagonists of the movie, with a large number of hero shots.

They convey connotations of strength, technology, safety and endurance and “they are the heroes responsible for saving the world and watching over the humans.”

Throughout the movie, General Motors is associated with the “good guys,” as even the police drive GMC SUVs.

Particularly noteworthy is the presence of several Ford models as Decepticons, i.e., “bad guys,” with the Ford logo appearing on several occasions, and the subsequent destruction of those vehicles, in addition to verbal placement at the beginning of the movie, when the protagonist rejects a Ford.

It is thus clear that General Motors, with its presence in this movie, wants not only to position its vehicles but also to demonstrate its supremacy over its most direct rival: Ford cars are destroyed, while General Motors cars resist any type of attack.

Finally, with regard to content analysis, those General Motors placements are defining, as it is a North American car brand, emphasizing the fact that the action takes place in the US, which is not only consistent with the action but also reinforces the idea that an American young man and an American car brand save the world.

With regard to the results of the structured interview with Norm Marshall, director and founding partner of Norm Marshall & Associates, responsible for placements of the General Motors Group, it is striking that the turning point is the early 2000s, when the evolution of placements is reflected in a fierce competition among brands to appear in the most promising films. For Norm Marshall, the best proof of the evolution is the large fleet currently available from automotive companies—particularly General Motors—for loans and leases.

He also believes that *Transformers 1* is, to date, the best proven case of a direct cause-effect relationship in sales, as well as an unprecedented worldwide box-office success, compared to the brand’s previous movie placements.

Although the Chevrolet Camaro was promoted not only through product placement in movies but also through conventional media such as spots or nascent digital media in 2007, such as advertising banners, Norm Marshall & Associates has found that the key to success was the PP in *Transformers*.

The measurements carried out were both quantitative and qualitative. The qualitative measurements included pretests and posttests performed in different environments: among visitors to showrooms, at dealerships with customers, as well as in post-sales questionnaires.

5. Conclusions

We find that the antecedents of current brand placement date to the dawn of cinema, becoming more professional in 1991 with the creation of the ERMA. This technique is now a perfect complement to conventional advertising, considering the saturation of the latter and that brand placement appears in an environment with no industry competitors, delivering greater credibility and increased viewer attention.

Despite its early emergence and apparent maturity as an advertising technique, PP was an ancillary, nonprofessionalized practice, used in a very intuitive way. A decisive change occurred in the late 1970s and early 1980s, when General Motors began to use agencies to arrange placements, reviewing scripts and seeking out opportunities. However, self-regulation was still a priority, a goal that was achieved in 1990 with the creation of the ERMA.

General Motors made a very early commitment—in 1933—to placing its vehicles in Hollywood productions and has maintained that strategy to the present day. It has appeared in most of the major blockbusters from 2000 to the present.

The role played by General Motors in its key movie projects is that of a car-hero. The vehicle becomes the real protagonist in the case of *Transformers*. Consequently, it attracts as much attention as a movie star because it can save the protagonist and help him save the world. It thus has powerful emotional connotations and becomes an extension of the protagonist's personality. General Motors conveys its essence as an American vehicle, with the Chevrolet Camaro as the star model, demonstrating its versatility and power.

The general objective of this investigation is therefore achieved, namely, a description and evaluation of product placement as an efficient marketing tool within the communication mix, based on the case of General Motors and *Transformers*. The results (box-office success, hyperactive role...) show that, thanks to that placement, the brand has been able to become a sales leader in the US, with the Chevrolet Camaro model increasing its sales 10% every year since it appeared in the movie, based primarily on having connected with the young audience (18 to 34 years old). General Motors, in this case, conveys its philosophy as a brand in a narrative cinematic context that gives its discourse credibility, resulting in increased sales.

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New Corporate Coordinates: The Case of Virtual Reputation

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Abstract

One of the keys to the intangible value of companies lies in having a good reputation. Reputation is projected in the traditional or physical world but also emerges strongly in the virtual space. In fact, the importance of reputation has led to the creation of tools to quantify and, if necessary, monitor it. There are decisions that can have a significant impact on it, for example, the integration of self-discipline systems that, depending on the circumstances in each case, may lead to a substantial improvement in virtual reputation. However, these systems can also have a negative impact on it, undermining the levels initially achieved.

Key words

Internet; blogs; business crisis; reputation; corporate social responsibility.

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1. Introduction

Currently, companies are aware of the need to have both visibility and good virtual reputation. Such aspects can help them both from a commercial point of view but also for the purpose of attracting new customers. Although, for the moment, reputational capital does not appear on companies' balance sheets, it could prove useful in the future. In this study, we will look at the value of reputation and the sources from which it emanates, focusing our attention on those activities likely to have an impact on reputation that originate on the Web.

The development of information and communication technologies in the second half of the last century has brought with it the emergence of new possibilities for society. Among these, the Internet occupies a very prominent place. On the Internet, platforms of a markedly social nature, such as blogs, wikis and social networks, have been devised and consolidated.

The advent of the Internet has brought about a revolution, as the potential user acquires a new role within the medium because he or she is no longer a mere spectator of content but, rather, the one who chooses, participates and even creates that content. In other words, in the current era, on the Web, a company is not the only issuer or active subject of an advertising message, with the consumer and/or user being the passive subject. In fact, these roles, which had belonged to each of the two groups in the past, especially in the physical world, have evolved. This has an impact on a company's virtual reputation, which, incidentally, must be distinguished from the concept of corporate social responsibility (CSR).

Although it is a difficult concept to measure, specific tools have been devised for this purpose. In this way, if appropriate, CSR can be monitored and improved. One of the avenues that can play an extraordinary role is the phenomenon of self-regulation. Indeed, we will show how the various manifestations of the phenomenon of self-discipline can be useful in improving self-regulation. However, a breach of the commitments undertaken voluntarily by a company, by virtue of self-regulation, can represent a significant loss in the reputation initially established.

2. Virtual Reputation as a Novel Corporate Manifestation

2.1. Conceptual Delimitation

Business reputation has been an issue addressed by different disciplines. Within the different disciplines, it has been extensively examined by the business sciences (Shenkar & Yuchtman-Yaar, 1997) because it is a subject that is more specific to that arena. Likewise, one of the main pitfalls to be addressed in relation to the issue under discussion is of a terminological nature. Indeed, given that corporate reputation is used by a remarkable range of disciplines—from sociology to game theory—and that each has its own concept, it is extremely difficult to offer a standardized definition (Haas & Unkel, 2017).

In this sense, although it has a certain multidimensionality and intangibility, corporate reputation is defined as the knowledge of the true characteristics of a company and the emotions shown towards them by its stakeholders—among whom are consumers and/or users. It is therefore the result of the representative perception of the company based on both its past performance and its future projection (Fombrun, 1996; Dwyer, 2007). It has also been emphasized that corporate reputation is an emotional concept, difficult to rationalize and express in words (Groenland, 2002). Obviously, it can have a positive or negative character.

The concept under consideration here undoubtedly has a certain influence on value creation. Indeed, a good reputation leads to higher profits (Landon & Smith, 1997; Roberts & Dowling, 2002), which undoubtedly facilitates the medium- and long-term strengths of the company in question (Teece, Pisana & Shuen, 1997).

Such appraisals can be extrapolated to the virtual space. In this case, we could say that online reputation is the valuation achieved by a given company and, therefore, of its products and/or services—through the use or misuse of the Internet (Smudde, 2005).

2.2. Differentiation of Related Figures: CSR

Companies today coexist in a highly competitive context that forces them to differentiate themselves in every way in order to survive in international markets. They need to find new sources of professional advantage that will enable them to remain competitive over time. This is where the importance of CSR in today's business world lies. CSR is a conditioning and, it could also be said, an integral element of business strategy, both at the corporate level, where it will condition the type of activity and the place where it is to be carried out, and at the business level, where it will influence the way in which it competes (Dittmar, 2012).

The term CSR does not have, according to current doctrinal considerations, a unanimous meaning, although we understand that it represents an expression that is close to the communication of values. Even so, it should be noted that CSR, at present, continues to be a still diffuse term that translates into different actions and objectives depending on the company, entity or organization that integrates it. As a result, it does not seem easy to provide a relatively agreed definition of CSR.

Without losing sight of the above considerations, CSR can be defined as the set of national and international obligations and commitments—of a legal and ethical nature—to stakeholders, deriving from the impact of the activities and operations of organizations in the social, labor, environmental and human rights spheres. Consequently, it can be said that CSR affects the management of organizations, both in their productive and commercial activities and in their relations with stakeholders.

CSR and corporate reputation are closely related. In fact, on numerous occasions, they can be confused (Fombrun & Shanley, 1990). In this sense, the economic press itself, with relative

regularity, makes use of both terms, linking them together. Likewise, the organizational structure of companies, in many cases, has merged CSR and corporate reputation management in the same department (Ferguson, Deephouse & Ferguson, 2000).

As for the similarities and differences between them, the main similarity is that both (CSR and corporate reputation) are based on a company's relationship with its various stakeholders. However, the most important difference lies in the fact that while CSR aims to objectively reflect the actions and attitudes of the company in its commitment to its stakeholders, corporate reputation is marked by its informational and perceptual content (Dittmar, 2020). In other words, CSR represents a set of actions or policies characterized by the company's management, while corporate reputation goes beyond the control of the organization and originates with the economic agents themselves.

Despite the essential difference mentioned above, they are closely related because perceptions are born in the minds of economic agents from the information they receive from the world around them. Thus, corporate reputation is the condensation of the perceptions generated by the economic agents themselves when observing the behavior of a company in the institutional scenario that surrounds it. Although corporate reputation is born in the minds of a company's stakeholders, its management can indirectly modulate these perceptions by virtue of the behavior it engages in with its stakeholders (López Jiménez et al., 2013). Consequently, CSR resides in the organization itself, although corporate reputation is found in the minds of stakeholders. In other words, we could say that CSR is more related to action, while corporate reputation is more related to communication.

CSR and corporate reputation, although they may seem similar, are different. Indeed, while CSR tries to describe objectively the behavior of the company in each of its relationships, corporate reputation reflects the perceptions of each of the participants in relation to the company. The company cannot control the perceptions that take place in the brains of the various economic agents, but what is under its control are the behaviors it maintains in its relations with the various participants and which are indirectly related to perceptions. Consequently, CSR management is part of active corporate reputation management. There is only one CSR, whereas there is enormous variety in corporate reputation. Indeed, it should not be forgotten that corporate reputation can be very diverse among various stakeholders.

CSR is part of corporate reputation because the latter—a good corporate reputation—should not exist without the former. Or, if it does occur, it should not be possible to maintain this competitive advantage in the long term without good practices to support it.

2.3. Impact of the Internet on This Matter

New participatory platforms and interactive cocreation services in which users have become active actors, producers or "producer-consumers" provide an unprecedented opportunity to unleash the

creativity of network participants. It is essential to create an environment and culture of openness and trust that fosters this development.

The current trend in the services that the Web makes available to the user—forums, blogs and social networks—is built on a common nexus based on collaborative activity, i.e., all those Internet utilities and services that are based on a specific database that, in turn, can be modified, both in form and content, by the users of the service themselves.

Social networks are services provided through the Internet that allow users to generate a public profile (for all users of the network without restrictions, or semi-public, only for personal contacts previously admitted by the interested party) in which personal data may, to a certain extent, be reflected. Additionally, there are computer tools that allow interaction with the other users of a social network. When we speak of the latter, we are referring to electronic platforms from which previously registered users can interact by means of messages and share information, images and/or videos that can be viewed by their authorized contacts.

Blogs have existed since the origins of the Web itself. Although, initially, they were not very popular, their use is growing, and they are now extraordinarily well known. A blog is a virtual diary containing reflections, comments and links to other digital sites (Johnson & Kaye, 2004). Blogs are located on Web sites in which the authors post opinions, reflections and links to other Web pages or blogs, with the possibility for different Internet users to enter their comments, which can be controlled, and even, if necessary, censored, by blog owners, who are called bloggers. Blogs present an inverse chronological order, meaning they are consulted starting with the last comment inserted.

There are different types of blogs: personal, thematic and corporate. In the case of personal blogs, the author usually expresses his or her point of view on a wide variety of issues, for example, current affairs, leisure or even professional issues. If a blog specializes in a particular subject, it can be said to be thematic in nature. Such tools can give rise to virtual communities that, given the high degree of specialization, influence the habits of numerous consumers and/or users (Blood, 2002). A corporate blog, which is frequently in the hands of an employee of the company to which it refers, represents a very appropriate tool for communicating a company's products, values and culture. The blog, in this variant—of which, in turn, there are several modalities (brand blog; product or service blog; employee blog; event blog; and sector blog)—is an ideal marketing instrument for strengthening relationships with both customers and suppliers and has, or could have, an impact on improving the results of a company's e-commerce activities. In short, blogs are an extraordinary two-way communication tool with customers and the media, as they encourage participation. It is notable that customers may perceive that they are being listened to, largely due to the responses and comments generated (Deephhouse, 2000; Updegrove, 2007).

Corporate blogs should be considered to occupy a very prominent position in electronic marketing strategies (Lee, Hwang, & Lee, 2006). There is a loyal blog audience that constitutes an interesting niche for corporate communication.

These communication tools are, as a general rule, noninvasive. Indeed, the Internet user who wishes to receive the latest events—whether in the form of comments, modifications or updates—must have subscribed to them beforehand. This means that the communications that the user receives in his or her e-mail inbox will have been voluntarily requested and cannot therefore be considered spam.

2.4. Quantification and Monitoring Instruments

Business reputation is visible both in the physical or offline world and in the virtual or online space. As regards the latter, which is projected in the traditional world, it is one of the areas of greatest concern for business executives. In fact, it is relevant to design both internal and external processes for reputation management on the social Web. In light of the above, two points should be made. On the one hand, the more visible a company is, the less control it has over its image on the Web. On the other hand, the opinions or value judgments that take place in the various collaborative instruments of the Web, such as blogs and social networks, contribute a large part to online corporate reputation, with the remaining part being the responsibility of the corporate website itself.

Although its quantification is extraordinarily complex, tools have been devised for this purpose. Thus, for example, to measure online audiences, companies such as the U.S.-based *Nielsen*, which specializes in measuring and analyzing Internet audiences, have launched *Buzzmetrics* in Spain. It is a tool capable of analyzing the comments made on more than 70 million blogs and some 100,000 online consumer and/or user communities. It is estimated that it monitors, in real time, more than three billion comments circulating on the Web. This tool facilitates the qualitative analysis of the opinions and content generated in blogs, newsgroups, forums and social networks.

Swotti is a search engine that specializes in tracking public opinions on Web 2.0 in relation to all types of brands, products and/or services. The technology is based on the semantic Web that allows any company to know, relatively quickly, the majority opinion on the Web in relation to a particular good and/or service.

Keotag is a tool that relies on social bookmarking. In this sense, the word or term in which the user is interested would be typed, offering results of the impacts on sixteen different platforms on the social Web, such as *Twitter*, *Del.icio.us*, *Flickr*, *MySpace* and *YouTube*, among others.

Other tools suitable for measurement include the following: the so-called content syndication readers (RSS); the *Technorati* search engine, which, in addition to being able to index the contents of the blogosphere, has certain functionalities that allow it to track and analyze an extraordinarily high number of opinions; and the creation of alerts to detect possible crises, such as *Google Alerts*, *Technorat Wacht List* or by virtue of RSS tools.

Once virtual reputation has been measured, it can be managed and, if necessary, improved. In other words, consumers and/or users share their opinions about products and/or services, people

and organizations in different spaces. These are forums, blogs, social networks and websites dedicated exclusively to reviews. That is, in the current era, on the Web, a company is not the only issuer or active subject of an advertising message, with the consumer and/or user being the passive subject. In fact, these roles, which in the past, especially in the physical world, belonged to each of the two groups, have evolved. Thus, a given consumer and/or user can express his opinion on the Web about a product and/or service and about the company that markets it. Such an assessment may also be likely to influence the behavior of the potential target audience.

3. Integration into Corporate Self-discipline Systems

Once we have seen, briefly, the concept and essential characteristics of several of the manifestations of the collaborative network, it is worth mentioning the relevance of self-regulation in such spaces. In this regard, it has been pointed out that the lack of rules that, in some way, discipline this matter is reminiscent of the Wild West. The latter, self-regulation, relatively often takes the form of codes of conduct.

However, the virtuality of codes of conduct in the specific case of blogs, without prejudice to the fact that they contain, in limited cases, some residual rules dedicated to the protection of privacy, is centered on the need to observe certain minimum standards of behavior in such spaces. For example, due to its relative popularity, reference should be made to the codes of conduct for blogs drawn up by *Tim O'Reilly*, of the *O'Reilly* publishing house, as well as by *Jim Wales* of *Wikipedia*. These codes of conduct were adopted in the wake of unfortunate incidents in the United States between bloggers. Among the rules included in such a document are taking responsibility not only for your own words but also for the comments you allow on your blog; labeling your tolerance level for abusive comments; considering deleting anonymous comments; ignoring trolls—that is, people who only seek to intentionally provoke users or readers; continuing the conversation offline, speaking directly, or finding an intermediary who can do so; if you know someone who is behaving badly, letting them know; and not saying anything online that you could not say in person. There are others with partially similar content, such as the one written by *CyberJournalist.net*, which is based on the code of ethics drawn up for this purpose by the Society of Professional Journalists. Therefore, in these last two cases, we will not find ourselves before what can be called a true system of self-regulation for two reasons.

First, the codes of conduct, which will be unilateral in nature—because they will have been drawn up by those responsible for the blog—do not in any way innovate the prevailing legal system, recognizing new rights in favor of their potential addressee, because they basically include rules of behavior in the communities for which they have been approved. In other words, they constitute a list of good practices that seek to encourage constructive conversations that respect personal ways of expressing oneself, thus limiting bad manners and uncivilized attitudes. Precisely to avoid editing potentially inappropriate, aggressive or denigrating comments, blog administrators may make their final publication conditional on their approval. However, what does not seem correct, in the case of corporate blogs, is that, under such an excuse, comments potentially unfavorable to

the companies to which they refer or their products and/or services can be censored. Such an assumption has arisen in practice. In this regard, it is worth mentioning the case in which a user complained, on the blog of the Marketing Director of *Hewlett Packard's* management software unit, about the bad experience he had in relation to a certain product. Because the opinion was unfavorable to the company's interests, the manager deleted it. However, the affected party made it public, and the event acquired extraordinary dissemination. In view of this, the manager acknowledged the facts, apologized, and proceeded to include the Internet user's opinion again. In this regard, certain *Hewlett Packard* corporate blogs include in their articles rules that expressly establish respect for the opinions expressed. Thus, they would only be removed if the rules of use of the code of conduct were violated.

Second, if they are transgressed, the sanction that, as a general rule, they will entail will be the deletion of the inappropriate comment and, where appropriate, the cancellation of the user's account, whose holder has violated the rules of use. In other words, there is no control body in charge of verification, representing a constituent presupposition of self-regulation systems.

Adherence to tools derived from self-discipline (such as certain ISO standards, UNE standards, codes of conduct, model codes, warranty marks, trusted third parties, etc.) may improve the online reputation of a company committed to such instruments of good practice. At a theoretical level, they entail an increase in the minimum rights recognized by the legislator in favor of the potential consumer and/or user. This aspect will be, as a general rule, positively valued by potential consumers and/or users because it will be perceived as a competitive advantage over direct and indirect competitors.

However, in the event that the member companies fail to comply with these voluntarily assumed commitments, they will incur a considerable loss in the level of online reputation that, in a given period of time, could have been achieved. The declaration of having breached the rules included in the articles of the same may be evidenced by the resolutions of the control bodies established within the scope of self-disciplinary systems. In the resolutions condemning a member company, various types of sanctions may be imposed, namely, a request to cease any activity that may be contrary to the code of conduct subscribed to; a financial fine; and, in the most serious cases, the publicized expulsion of the noncompliant company.

The articulation of the tools in which self-regulation is manifested can, and in fact often does in practice, include, in addition to the prevailing legislation, an additional plus. The latter will sometimes be of an ethical nature, which means that member companies may incur in infringements that, on the contrary, might not occur in the case of being subject only to the laws in force.

Such a case must be clearly distinguished from one in which the self-regulation system's supervisory body rules on a complaint made against a nonmember company—or, in other words, an outside third party. The resolution, if any, issued by the supervisory body may highlight the violation of one of the ethical rules of the code of conduct, which it is not obliged to respect. Moreover, the content of the resolution could, in some cases, be demeaning. Therefore, the virtual

reputation of the company to which the resolution refers may be harmed. The use of the Web would inexorably contribute to this because by making it extraordinarily easy to disseminate—by resorting to blogs and/or social networks—the potentially negative effects would be amplified.

4. Conclusions

On the Internet, a company is not the only issuer or active subject of an advertising message, and the consumer and/or user is not a passive subject. These functions, which were typical of each of the groups in the past, especially in the physical world, have evolved. This has an impact on a company's virtual reputation, which must be distinguished from the concept of CSR.

Although it is a difficult concept to measure, specific tools have been devised for this purpose. In this way, if appropriate, virtual reputation can be monitored and improved. One of the avenues that can play an extraordinary role is the phenomenon of self-regulation.

Indeed, the various manifestations of the phenomenon of self-discipline—including codes of conduct—can be useful in improving virtual reputation. However, a breach of the commitments undertaken voluntarily by a company, by virtue of self-regulation, can represent a significant loss in the reputation initially established.

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Book Review: Marketing digital y comercio electrónico

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The second edition of *Marketing digital y comercio electrónico* establishes it as the most complete, advanced and thorough work on marketing and digital technology in Spanish. The book discusses the most influential conceptual frameworks and models in marketing in theoretical and practical terms – based on the results of empirical research, good practices and successful business initiatives.

The structure of the book follows the development of digital marketing. This new edition provides a broader perspective on the converging concepts of marketing and digital marketing. Thus, market orientation, relationship marketing, omnichannel marketing, service-dominant logic and consumer engagement are the backbone themes, without losing sight of the fact that technology is at the heart of digital marketing. It also identifies future trends in value exchange in digital markets, both in the more traditional forms of B2C and B2B relations, and among consumers and a variety of organizations.

The first chapter provides a comprehensive overview of the nature and scope of digital marketing and e-commerce. It offers a new approach to presenting digital media, gives an overview of the more established digital technologies and explores more recent ones, such as blockchain and artificial intelligence, and how they can help create value in marketing.

The second chapter examines marketing strategy in the digital ecosystem and it pays particular attention to two new topics: the digital marketing strategic process and the engaged consumer. The former is defined within the context of general business strategy and the omnichannel marketing strategy. The second section provides a thorough assessment of what companies can

offer so that consumers become a value element for their brands. Next, the discussion of relationship marketing and CRM maintains their credentials as an essential strategy, culminating in key performance indicators to assess the success of marketing initiatives.

The third chapter focuses on the connected consumer. Consumer empowerment is approached via the most recent scientific findings, such as the intrapersonal and interpersonal aspects that underlie consumer connectivity. The analysis also includes mental and sensory ideas, providing a new perspective for companies to understand the psychological processes and experiences involved in consumption and thereby to improve their digital marketing initiatives.

The fourth chapter examines a wide variety of methods and tools for digital marketing research. It comments on new approaches to previously consolidated techniques, such as sampling methods for online surveys and neuromarketing for experimentation, and it introduces the future debate on how artificial intelligence helps optimize market research.

The fifth chapter presents decisions on products, brands and prices in the digital ecosystem. Clearly, companies need to offer an effective value proposal to consumers, while encouraging them to jointly build an even more attractive value proposal. This not only furthers the debate on the role of consumers' trust in the brand and their ability to add value but also opens up new perspectives on the topic. The chapter also covers approaches to dynamic pricing strategies, in particular using learning algorithms that lead to highly dynamic competitive pressure.

Digital marketing communication is discussed over two chapters, one on company media and the other on third-party media. The first chapter examines integrated digital marketing communication, marketing communication in owned media and the most recent principles of content marketing and optimization. The second chapter shows how companies can use paid and earned media in their integrated marketing communications. Advertising continues to play a leading role in paid media, as well as eWOM and viral marketing. Also the brand trust and credibility built in earned media are analysed.

The last chapter provides an overview of marketing channel decisions. It examines the essential elements of ecommerce, such as types of intermediaries and aspects of security, explores recent trends, such as social commerce and the more pioneering digital technologies for physical stores, and studies in detail the value strategies that enable consumers to benefit from an omnichannel shopping experience.

Despite the greater complexity of the digital ecosystem, the author provides a clear and entertaining presentation of the latest advances in digital marketing theory and practice and related technology. Thanks to the examples from business, readers will find her work trustworthy, credible and captivating, and feel motivated to become part of the omnichannel experiences the book describes.

Book Review: Corporate social responsibility: from concept to management

Barrio Fraile, E. (2019). *Corporate social responsibility: from concept to management*. Barcelona: UOC. ISBN: 9788491804093.

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Corporate social responsibility (CSR) reigns in many areas of social life, increasingly adopted and recognized. It is not a new phenomenon, as it has been around for decades. Currently, however, it is a topic of recurring conversations. Firms, media, consumers, shareholders and a long etcetera - stakeholders in general - value it more and more.

Its preeminence should not go unnoticed. Many firms consider that CSR should be equally as important as company profits or income. Worldwide, important social revolts are taking place, among which we can highlight, by no means an exhaustive list, Hong Kong, Chile and Argentina. Society demands change and improvements in their lives, in short, solutions to their problems. Such voices or grievances call for reflection by politicians, public regulators, firms, and organizations as a whole. There is profound inequality, the climate crisis is real, and automation is increasing everywhere.

In short, the future of our planet and its inhabitants is in a dire state of emergency. Recently, the Business Roundtable, which is one of the main lobbies in the United States, issued a statement ending a policy that was defended since the late 1970s. This policy, argued by Milton Friedman, claimed that the goal of the firm is to maximize profits to shareholders and that the sole responsible is to the shareholder. Today, and for several decades, it is recognized that more attention should be paid to workers, suppliers, and the communities in which they interact. The benefit must be of a social nature. There are those who consider it a starting axiom. In other words, it has even been pointed out, along these lines, that, for companies to operate, they should clearly

indicate in their statutes what their social benefits will be. It is not a trivial issue. It is a matter that affects us all.

CSR is not a new aspect, as we said, nor foreign to firms. It must be present in all the actions that firms carry out. It is not merely a matter of publishing an annual report in accordance with GRI (Global Reporting Initiative) standards that accompanies the financial statement of the company.

As reality shows, we live in the era of the Internet of Things (IoT), artificial intelligence, big data and other no less notable advances. We live in a world where everything is interconnected and everything goes viral - think, in this sense, of the power of social networks. In short, everything is interconnected with everything else. CSR should be linked to the Sustainable Development Goals (SDGs) of the 2030 Agenda. Among other things, as known, they refer to eradicating poverty, empowering women, using water sustainably, reducing inequality, and fighting climate change.

CSR should not, therefore, be a tangential aspect for firms. It must occupy a central place and influence all decisions. It is as significant as short-term profits or expansion into high profitability markets. Firms must work towards growth that is profitable but also sustainable. It must be realized that they are not the be-all and end-all. In other words, they exist to help people outside of the company, in different areas. The most consolidated firms over time have generally been characterized by a certain sensitivity to the social climate of their time.

Dr. Barrio, author of the monograph reviewed, has a doctorate in advertising and public relations and has extensive experience in the field of communication. In addition, she is a researcher and academic at the Autonomous University of Barcelona.

The work has five chapters, each with its own bibliography, which we will briefly discuss below. As noted in the foreword, CSR is not a passing phenomenon but, rather, here to stay. It presents the added advantage of its usually low economic cost compared to the benefits from the point of view of corporate reputation and the internal brand it elevates.

The first chapter, introductory and conceptual in nature, highlights the rise of CSR. Among the causes leading to the social responsibility boom are advances in the Information and Communication Technology (ICT) sector, people's distrust of corporations, environmental degradation, globalization and ethics. The systematic analysis of the profitability of CSR, based on different stakeholders, is especially thought-provoking. Being honest and responsible has a favorable effect on corporate reputation.

The second chapter refers to the diversity of doctrinal opinions surrounding CSR. However, given the lack of unanimity, the author identifies their commonalities to subsequently develop her own definition. This chapter also delves into the principles and dimensions of social responsibility. Especially provocative is the assessment regarding its possible role in improving neighbor relations, a concept that, in turn, would encompass two planes. First, it involves not behaving in ways that would harm a neighborhood. Second, and related to the first, it assumes that these activities should be expressed as the optional acceptance of the duty to help solve the handicaps that may eventually arise in a neighborhood.

The phenomenon of CSR should not be confused with figures that could be similar, although they are not. The third chapter is dedicated to that issue. The author correctly identifies the differences between them. There may be some confusion regarding cause marketing, social action, philanthropy, or ethics. For a long time, CSR has been confused with philanthropy. A good portion of managers have operated with misguided idea of CSR. They thought that it had to do with the social projects that their companies carried out, through their foundations, and not with the way in which their societies gained their income. It is about the observance of the law, human rights and caring for the environment. For a long time - even to this day it continues - the actions of CSR have been more tied to, if possible, the areas of communication. Communication reveals what is being done, regarding public issues, to improve the relationship with the environment or even with business foundations.

The last two chapters address the CSR management process. They include the dynamic model, which analyzes each of the stages (environmental assessment; planning; implementation; monitoring and control; communication; and feedback), and outline the professional profile that should manage the process. In this last sense, according to the author of the work, the most appropriate position for managing CSR is the director of communication.

Above all, it should not be forgotten that boards of directors must observe both CSR and sustainability under Community Directive 95/2014 regarding nonfinancial and diversity information, transposed into Spanish by Law 11/2018 of Article 529 ter. 1, a) of the Corporate Enterprises Act and the Good Governance Code of Listed Companies. The Corporate Enterprises Act states the following: "The board of directors of listed companies may not delegate the decision-making powers referred to in Article 249 bis nor specifically the following: approval of the strategic or business plan, the management objectives and annual budget, investment and financing policy, corporate social responsibility policy and dividend policy". Note that the board of directors is responsible for overseeing and evaluating the relationship processes of a company with stakeholders. Likewise, it should be taken into account that following the articles of the Corporate Enterprises Act and the Good Governance Code of Listed Companies, the role of the board of directors stands out (in terms of oversight, evaluation and content), which is why CSR applies. Furthermore, the Law on Non-Financial and Diversity Information should also be considered.

We have here a reference work in this field, a comprehensive journey with respect to CSR and its management, which is easy to read and provides perspective and rigorous content in its approaches. CSR is a type of revolution in which it is the firms and consumers who are paving the way. Boards of directors themselves must be cognizant of the new CSR reality.

Only if there is a complete and transparent connection between the values presented by the company, which are part of what could be called its DNA, and those exercised by CSR will genuine value be created. However, if inconsistencies reveal themselves, trust in the company will undoubtedly be affected and lead to harmful behavior.