

CONFERENCE PROCEEDINGS OF THE 1ST CONFERENCE IN BUSINESS RESEARCH AND MANAGEMENT
UNIVERSITY OF CASTILLA – LA MANCHA, TOLEDO, SPAIN – MAY 26TH–27TH, 2022

This edited book contains the conference proceedings of the “1st Conference in Business Research and Management”, organized by the University of Castilla – La Mancha and the University of Rome “Tor Vergata”. The Conference took place on May 26th and 27th 2022, at the University of Castilla – La Mancha in Toledo. The aim of the Conference was to discuss the most important managerial and organizational implications of the pandemic and the future challenges that public and private organizations will have to face in the coming years, the so-called “New Normal”. The volume contains all the 49 extended abstracts presented during the Conference.

Essays by Alberto ALCALDE–CALONGE, Gianluca ANTONUCCI, Mimoza ARIFI, Alexis Jacobo BAÑÓN GOMIS, Hulisi BINBASIOGLU, Juan Climent BLASCO, Juan Jose BLAZQUEZ–RESINO, María Isabel BONILLA DELGADO, L. Javier CABEZA–RAMÍREZ, Riccardo CAMILLI, M. Carmen CANO VICENTE, Alessia CARECCIA, Katerina Fotova ČIKOVIĆ, Nathalie COLASANTI, María CORDENTE–RODRÍGUEZ, Nicola COZZOLI, Inmaculada CRESPO–MORÁN, Matteo CRISTOFARO, Violeta CVETKOSKA, Nino DEMINASHVILI, Tinatin DOLIDZE, Mario J. DONATE, Chiara FANTAUZZI, Anabel FERNÁNDEZ–MESA, Luis Alfredo FERRER–BAUZA, Rocco FRONDIZI, Fernando FUENTES–GARCÍA, Alejandro GAMÓN SANZ, María Ángeles GARCÍA–HARO, Alejandro GARCÍA–POZO, Pier Luigi GIARDINO, Camilo GIRALDO GIRALDO, María Isabel GONZÁLEZ RAMOS, Thais GONZÁLEZ–TORRES, Marta GOTOR CUAIRÁN, Fátima GUADAMILLAS GOMÉZ, Santiago GUTIÉRREZ BRONCANO, Jannicke Baalsrud HAUGE, Dea HAXHINASTO, Fernando Octavio HERNÁNDEZ VILCHIS, Inés HERRERO, Ivo HRISTOV, Igor IVANOVSKI, Pedro JIMÉNEZ ESTÉVEZ, Evica Delova JOLEVSKA, Erika JONUSKIENE, Yasemin KESKIN YILMAZ, Andromahi KUFO, Jorge LINUESA–LANGREO, Attila LOIBL, Ricardo MARTÍNEZ–CAÑAS, Marina METREVELI, Michele MILONE, José MONDÉJAR–JIMÉNEZ, Juan–Antonio MONDÉJAR–JIMÉNEZ, Miguel GONZÁLEZ–MOHINO, Lior NAAMATI–SCHNEIDER, Aleksandar NAUMOVSKI, Christopher P. NECK, David NEIRA, Quinones NILTON, Beatriz ORTIZ GARCÍA, Gabriele PALOZZI, Susana PASAMAR, Eva PELECHANO–BARAHONA, José–Luis RODRÍGUEZ–SÁNCHEZ, Pablo RUÍZ PALOMINO, Jemma SAAKYAN, Francisco José SÁEZ–MARTÍNEZ, Fiorella Pia SALVATORE, Sandra M^a SÁNCHEZ–CAÑIZARES, Francisco SÁNCHEZ–CUBO, Sergio SÁNCHEZ RAMÍREZ, Hemant SHINDE, Eriona SHTĚMBARI, Marija SPASOVSKA, Antoniu STEFAN, Ioana Andreea STEFAN, Julio SUÁREZ–ALBANCHEZ, Dolores Lucía SUTIL, Mariam TKHINVALELI, Nivaldo Vera VALDIVIEZO, José–María VALERO–GARCÍA, Joaquín Alegre VIDAL, Juan–José VILLANUEVA–ÁLVARO, Walter VESPERI, Amarildo ZANE, Anastassia ZANNONI.

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TABLE OF CONTENTS

- 13 Preface
Matteo Cristofaro, Pablo Ruiz Palomino, Rocco Frondizi, Pedro Jiménez Estévez, Santiago Gutiérrez Broncano, Fiorella Pia Salvatore and Gianluca Antonucci
- 17 A Study on the Link Between Shared Leadership and Decision Quality
Matteo Cristofaro, Christopher P. Neck, Pier Luigi Giardino and Christopher B. Neck
- 25 Digital Transformation and Top Management Teams: A Systematic Review
David Neira and Anabel Fernández
- 33 Impact of COVID–19 in the Big Organizational Sequences
Mariam Tkhinvaleli and Nino Deminashvili
- 39 Consolidation of Neuromanagement to Organizational Strategy and Business Communications, for Adequate Emotional Quality in Workers
Camilo Giraldo Giraldo, Santiago Gutierrez Broncano and Juan Jose Blazquez Resino
- 47 Social Preferences and Strategic Interaction: Implications of Reciprocal Fairness for the Optimal Incentives Provision
Anastassia Zannoni

- 53 Understanding the Organizational Communication in Non-profit Organizations: A Participatory Action Research
Walter Vesperi
- 59 Team Autonomy and Organizational Support, Well-Being, and Work Engagement in the Spain Computer Consultancy Area: The Mediating Effect of Emotional Intelligence
Julio Suárez-Albanchez, Pedro Jimenez-Estevez, Juan Jose Blazquez-Resino and Santiago Gutierrez-Broncano
- 69 How Satisfied are we with Compensations & Benefits Package? Any COVID-19 Impact? The Case of Albania
Eriona Shtëmbari, Andromahi Kufo and Dea Haxhinasto
- 77 Exploring Job-Related Skills Through Internships Before and During COVID-19
Eriona Shtëmbari
- 85 Loss Aversion in Performance Management: From Systematic Literature Review to Theoretical Framework
Riccardo Camilli and Ivo Hristov
- 91 Performance and the Pandemic: The Case of the Insurance Industry in Albania
Andromahi Kufo and Eriona Shtëmbari
- 101 Human Resource Information System for Improving Organizational Development Concerning Private Manufacturing
Hemant Shinde and Alexis Jacobo Bañón Gomis
- 109 COVID-19 Experienced by Small and Medium-Sized Family Businesses and Future Growth Prospects: Results from a Pilot Study
Fiorella Pia Salvatore, Lior Naamati-Schneider and Michele Milone

- 117 Entrepreneurship Spatial Dimensions and the Effect of Public R&D Policy
Juan Climent Blasco and Anabel Fernandez-Mesa
- 123 The Socio-Emotional Influence on Entrepreneurial Capabilities. The History of a Medium-Sized Family Business
Fernando Octavio Hernández Vilchis
- 129 Digital Transformation in the FMCG Industry. Past Trends, Future Directions and Practical Considerations
Attila Loibl
- 135 Lean Startup Principles to Align Business Innovations with Customer Needs During and After COVID-19 Pandemic
Alejandro Gamón Sanz and Joaquín Alegre Vidal
- 141 It is not Gold all that Glitters: Analysing the WLB of Family and Nonfamily Firms
Inés Herrero and Susana Pasamar
- 147 The International Profile of the Entrepreneurial Culture: A Case of Study Between Chinese and Spanish Students
Amarildo Zane, María Isabel González Ramos and Fátima Guadamillas Gómez
- 153 Are Effective the Subsidies Policies for Self-Employment?
Sandra M^a Sánchez-Cañizares, L. Javier Cabeza-Ramírez, Fernando Fuentes-García and M. Carmen Cano Vicente
- 159 COVID-19 Pandemic and the Main Aspects of Agriculture
Jemma Saakyan
- 165 The Evolution of Ecuador's Banana Sector and the Transition to Competitiveness
Nivaldo Vera Valdiviezo, María Isabel Bonilla Delgado and Pablo Ruíz Palomino

- 173 Exploring Platform Capitalism: Considerations on Labour and Employment
Nathalie Colasanti and Rocco Frondizi
- 179 The Effect of Digitalization on Innovation Capabilities Through the Lens of the Knowledge Management Strategy
Sergio Sánchez Ramírez, Fátima Guadamillas, M^a Isabel González and Olga Grieva
- 187 Artificial Intelligence and Patient Empowerment in the Healthcare Industry
Mona Eisa Yagoub Mohammed, Fátima Guadamillas Gomez and Beatriz Ortiz García
- 193 The Generativity of Sport as a Tool for Social Value Creation in the Post-COVID Era
Gianluca Antonucci and Gabriele Palozzi
- 199 The Effect of OTC Medicines Advertisements on Television During the COVID-19 Pandemic on Purchase Intention: A Qualitative Study on Academics
Yasemin Keskin Yilmaz and Hulisi Binbasioglu
- 207 The Brand Experience and the Engagement Like Influencers on Centennial's Decisions Making in the Dermo-cosmetics Sector in Spain
Marta Gotor Cuairán and Dolores Lucía Sutil
- 215 Guarantee Brands and Trust Generation: Context of COVID-19
María Cordente-Rodríguez, Juan-José Villanueva-Álvaro, José-María Valero-García and Juan-Antonio Mondéjar-Jiménez
- 223 Big Data Analytics for Smart Healthcare Management
Nicola Cozzoli and Michele Milone

- 231 Modeling and Forecasting Stock Price Movements
Marija Spasovska, Violeta Cvetkoska, Aleksandar Naumovski and Igor Ivanovski
- 239 Bibliometric Analysis in Banking on Women and Corporate Governance
Evica Delova Jolevska and Violeta Cvetkoska
- 249 What Skills Should a Management Scientist Consultant Possess?
Violeta Cvetkoska and Katerina Fotova Čiković
- 257 Proposal of a Framework to Analyze the Mechanism of Dynamic Capacities in a Public Organization
Quinones Nilton
- 265 Hospital Crisis Management: Can Transformational Management be the Answer?
Lorenzo Pratici, Simone Fanelli, Fiorella Pia Salvatore and Michele Milone
- 273 Participatory Public Governance in Local Settings: Comparing Digital Civic Engagement Initiatives
Chiara Fantauzzi and Rocco Frondizi
- 279 Healthcare Organizations and Public Hospitals: Emerging Issues During and After the COVID-19 Pandemic
Lior Naamati-Schneider, Fiorella Pia Salvatore and Michele Milone
- 285 Towards Effective Sustainable Models for Developing Underdeveloped and Unpopulated Regions. The Experience of Urban Forest Innovation Lab (UFIL) Project in Cuenca (Spain)
Alberto Alcalde-Calonge, Francisco José Sáez-Martínez and Pablo Ruiz-Palomino
- 295 The Circular Economy and its Effects on Reducing the Carbon Footprint in Ikea Company
Pedro Jimenez-Estevez, Juan Jose Blazquez-Resino, Santiago Gutierrez Broncano and Luis Alfredo Ferrer-Bauza

- 301 The Relationship Between Socio–Economic Inequality and Environmental Factors: The Case of Rome
Alessia Careccia
- 307 Circular Economy in the Maritime Sector: A Literature Review
Erika Jonuskiene
- 315 External Quality Certifications and Hospitality Firms in the Post COVID–19 Era
Thais González–Torres, Eva Pelechano–Barahona and José–Luis Rodríguez–Sánchez
- 321 The Transactive Memory System for Improving Innovation Capability and Reputation: An Analysis in the Spanish Hotel Sector
Miguel González–Mohino, Mario J. Donate, Fátima Guadamillas and Javier Cabeza–Ramírez
- 329 Unveiling Rural Accommodations’ Resilience Factors to COVID–19 Pandemic
Francisco Sánchez–Cubo, Alejandro García–Pozo and José Mondéjar–Jiménez
- 333 The Effects of COVID–19 Crisis on the Spanish Hospitality Sector. An Expenditure–Based Approach
Francisco Sánchez–Cubo, José Mondéjar–Jiménez and Inmaculada Crespo–Morán
- 339 COVID–19 and its Impact on Tourism and Hotel Business. The Case of Georgia
Marina Metreveli and Tinatin Dolidze
- 345 Social Media and Tourist Expectations: An Application in Industrial Tourism
María Ángeles García–Haro, Ricardo Martínez–Cañas, Pablo Ruiz–Palomino and Jorge Linuesa–Langreo

- 353 Resilient Collaborative Decision-Making in Research Project
Implementation
Ioana Andreea Stefan, Jannicke Baalsrud Hauge and Antoniu Stefan
- 359 How COVID-19 Influenced Technological Changes in SMES
in a Transitional Country
Mimoza Arifi

PREFACE

**MATTEO CRISTOFARO¹, PABLO RUIZ PALOMINO², ROCCO FRONDIZI¹,
PEDRO JIMÉNEZ ESTÉVEZ², SANTIAGO GUTIÉRREZ BRONCANO²,
FIORELLA PIA SALVATORE³ AND GIANLUCA ANTONUCCI⁴**

COVID–19 has revolutionized the lives of people and organizations. In particular, business and public entities, all over the world, had to rethink the way they operate within a rapidly changing, increasingly complex, and unpredictable environment. In a context in which governments have been forced to impose restrictive measures to contain the spread of the virus, companies ought to adapt, evolve, and innovate to respond to the economic, social, health, and environmental challenges that the pandemic presented. Nowadays, organizations are not only asked to be profitable and in equilibrium but to be resilient and flexible in a sustainable way.

In such a new scenario, management scholars will inevitably have to rethink and question the logic and theoretical assumptions that dominated recent decades.

The aim of the *1st Conference in Business Research and Management* (CBR&M), is to discuss the most important managerial and organizational implications of the pandemic and the future challenges that public and private organizations will have to face in the coming years, so-called ‘New Normal’.

The *1st Conference in Business Research and Management* is organized by the University of Castilla – La Mancha and the University of Rome “Tor Vergata”. The event took place on May 26th and 27th 2022 in a

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hybrid format, on–site at the University of Castilla – La Mancha in Toledo, but also allowing the participants to join online.

At the end of the promotional window, 51 Extended Abstracts (EAs) were collected, and 49 were presented during the Conference. The 49 EAs are theoretical, conceptual, and empirical contributions to the field of business research and management. In particular, the following topics have been investigated by the submitted EAs and they formed the title of the parallel sessions of the Conference: 1) Organizational Behavior; 2) Human Capital and Performance Management; 3) Entrepreneurship and Small Business Management; 4) Economics and Production; 5) Technology and Marketing Management; 6) Big Data, Analytics, and Artificial Intelligence; 7) Public Management and Governance; 8) Sustainability Management and Circular Economy; 9) Tourism and Hospitality Management.

In total, the number of authors (corresponding and non–corresponding ones) was 115. The Institution distribution of corresponding authors was the following: University of Castilla – la Mancha (14 EAs); the University of Rome “Tor Vergata” (5 EAs); University of Valencia (4 EAs); Georgian Technical University (3 EAs); University of New York Tirana (3 EAs); “Ss. Cyril and Methodius” University in Skopje (3 EAs); King Juan Carlos University (2 EAs); Arizona State University (1 EA); Corvinus University of Budapest (1 EA); the D’Annunzio University of Chieti–Pescara (1 EA); Hadassah Academic College Jerusalem (1 EA); Klaipeda University (1 EA); Magna Graecia University of Catanzaro (1 EA); Malatya Turgut Özal University (1 EA); Pablo de Olavide University (1 EA); Pontifical Catholic University of Peru (1 EA); University American College Skopje (1 EA); University of Alcalá (1 EA); University of Bremen (1 EA); University of Córdoba (1 EA); University of Foggia (1 EA); University of Parma (1 EA).

The country distribution of corresponding authors’ institutions was: Spain (23 EAs); Italy (9 EAs); North Macedonia (4 EAs); Albania (3 EAs); Georgia (3 EAs); Germany (1 EA); Hungary (1 EA); Israel (1 EA); Lithuania (1 EA); Peru (1 EA); Turkey (1 EA); United States (1 EA). This synthesis clearly demonstrates that the Conference reached an international audience, forming a strong basis for future editions.

During the days of the Conference, three *lectio magistralis* were delivered:

- “The world after COVID–19: Insights and challenges from an ethical perspective”, by Joan Fontrodona, Professor of Business ethics, the IESE business school;
- “Innovating through digital transformation: reflections and implications for research in the post–pandemic context”, by Joaquin Alegre Vidal, Professor of Innovation Management, the University of Valencia; and
- “Regionalization of Global Value Chains after the COVID–19 Pandemic: research and management implications”, by José Pla Barber. Professor of International Business, the University of Valencia.

Apart from the scientific ‘duties’, participants of the Conference had the possibility to visit the city of Toledo thanks to an organized tour. Additionally, all of us had the occasion to know each other better in a social dinner.

Some extended abstracts presented to the conference underwent, when developed as a full paper, a fast–track review process for publication in two Special Issues:

- “Business Research and Management Emerging issues after COVID–19 time” for *International Journal of Business Research Management* (IJBRM) (slots of ‘free of charge’ papers have been allowed) guest edited by: Rocco Frondizi, Santiago Gutiérrez Broncano, Fátima Guadamillas Gómez, and Ammar Al–Bazi.
- “What is in the future of Business Research and Management? Emerging issues after COVID–19 time” for *Administrative Sciences* (amsci; Scopus and ESCI indexed) (slots of ‘free of charge’ papers have been allowed) guest edited by: Matteo Cristofaro, Pablo Ruiz Palomino, Fiorella Pia Salvatore, Pedro Jiménez, Andromahi Kufo, and Ricardo Martinez Cañas.

Moreover, some other papers presented at the Conference were selected for publication in the following journals:

- *Business System Research Journal* (Scopus and ESCI indexed);
- *Journal of Information and Organizational Sciences* (Scopus and ESCI indexed);
- *Management: Journal of Sustainable Business and Management Solutions in Emerging Economies* (EBSCO indexed);
- *International Journal of Banking, Risk and Insurance* (EBSCO indexed).

Finally, it is here reported the Conference Organization, which fully expresses its fulfillment for the overall experience of the Conference, especially the connections made and the reinforced friendship.

Co–chairs

Matteo Cristofaro, University of Rome Tor Vergata

Pablo Ruiz Palomino, University of Castilla – la Mancha

Rocco Frondizi, University of Rome Tor Vergata

Pedro Jiménez Estévez, University of Castilla – la Mancha

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A STUDY ON THE LINK BETWEEN SHARED LEADERSHIP AND DECISION QUALITY

**MATTEO CRISTOFARO¹, CHRISTOPHER P. NECK², PIER LUIGI GIARDINO³
AND CHRISTOPHER B. NECK⁴**

KEYWORDS: Shared Leadership, Self-Leadership, Decision Comprehensiveness, Debate, Decision Quality.

1. Objectives

Nowadays, due to their key influence on the survival and success of organizations, leaders' chief duty is to make effective decisions (Cyert & March, 1963). To facilitate this effective decision making, a growing number of large-, medium- and even small- enterprises are currently embracing the Shared Leadership (SL) practice to more easily handle decision stressors, such as information overload, time pressure, complexity and uncertainty (Phillips-Wren & Adya, 2020; Pitelis & Wagner, 2019); and to in turn, make superior choices.

However, despite the multitude of contributions investigating the effect of SL in organizations, with regard to team and firm performance (Carson *et al.*, 2007), team trust and intervention (D'Innocenzo *et al.*, 2021), team and firm capabilities (Cristofaro *et al.*, 2020; Singh *et al.*, 2019), resource planning (Hoch & Dulebohn, 2013; Mihalache *et al.*,

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2014), and change management (Pearce & Sims, 2002), there is a substantial unaddressed gap in directly understanding the influence of SL on the quality of decisions made (Wang *et al.*, 2014; Wu *et al.*, 2019) — despite reciprocal positive effects having been examined (Cater & Justis, 2010). In fact, although good decisions are antecedents to all the outcomes examined above and it can be advanced, in turn, that the quality of decisions has been implicitly examined, no prior contributions straightforwardly investigated the proposed SL–decision quality relationship. Therefore, the present contribution is intended to answer the following research questions: Does shared leadership influence decision quality? What are the mechanisms that foster or undermine shared leadership to make superior choices?

2. Theoretical Background

Due to the fact that decision quality is mainly driven by the systemic procedure through which agents methodically deal with gathered information (Carr *et al.*, 2021; Meissner & Wulf, 2014), it is hypothesized here that the SL–decision quality relationship is mediated by decision comprehensiveness — i.e., “the extent to which organizations attempt to be exhaustive or inclusive in making and integrating strategic decisions” (Fredrickson & Mitchell, 1984, p. 402) — because decision comprehensiveness is commonly helpful in lowering the negative effects that individual and group information biases (e.g., self-reporting, measurement-error and confirmation bias) have on the choice context that surround decision-makers (Althubaiti, 2016). Connected with this phenomenon, it has been assumed that individual team member’s possession of high levels of self-leadership — the “process through which individuals control their own behavior” (Neck & Houghton, 2006, p. 270) — negatively moderates the SL–decision comprehensiveness mediated relationship. Indeed, it has been recently found that individuals with a high level of self-leadership are more prone to be victims of biases that lead to a poor capacity to accomplish systemic search for information (Cristofaro & Giardino, 2020). On the contrary, we additionally hypothesize a positive moderation of the debate variable,

because “debate itself, through its presence rather than its format, improves group performance by formalizing and legitimizing conflict and encouraging critical evaluation” (Schweiger *et al.*, 1989; p. 767); consequently, well-established debate policies may enhance the capacity to accomplish systemic search for information and avoid information biases (Castellano *et al.*, 2021).

As a result, the model we propose hypothesizes a positive effect of SL on decision quality by the mediation of decision comprehensiveness (H1), however, the SL–decision comprehensiveness relationship is assumed to be, on one hand, negatively moderated by individuals’ high levels of self-leadership (H2) while, on the other hand, positively moderated by debate among team members (H3).

3. Methodology

To test the validity of the proposed moderated mediation model, we administered a survey to 112 Research & Development teams and their direct managers that are, respectively, involved and responsible for the proposal of innovative products and/or services. Following recent research studying similar models (Dimitrova, 2020), data have been analyzed through a structural equation modeling (SEM).

Specifically, the elements that feature the proposed conceptual model have been measured as follows:

- i) Shared leadership. To assess the level of shared leadership, a 20-item Likert-type scale on 5-points (Grille & Kauffeld, 2015; $\alpha = .87$) has been implemented;
- ii) Decision comprehensiveness. To assess decision comprehensiveness, a 5-item Likert-type scale on 5-point (Atuahene-Giman and Li, 2004; $\alpha = 0.93$) has been implemented;
- iii) Self-leadership. To assess self-leadership, a 35-item Likert-type scale on 5-point (Carmeli *et al.*, 2006; $\alpha = 0.73$) has been implemented;
- iv) Debate. To assess the level of debate, a 4-items Likert-type scale on 5-points (Simons *et al.*, 1999; $\alpha = 0.75$) has been implemented;

- v) Decision quality: To assess quality of decisions, a 3-items Likert-type scale on 5-point (Amason, 1996; $\alpha = 0.85$) has been implemented.

Furthermore, we controlled for a series of variables both generic (i.e., 'team size', 'functional diversity', 'team turnover', 'goal uncertainty', 'task interdependence', 'gender diversity', and 'educational background') and more specific ones (i.e., 'managerial performances', 'institutional environmental volatility', 'affective conflict', 'cognitive conflict', 'environmental munificence' and 'behavioral integration').

4. Findings

The results indicate that the five-factor structure fit the data better than the following alternative models, $\chi^2(504) = 1543.31$, root mean square error of approximation (RMSEA) = 0.05, standardized root mean square residual (SRMR) = 0.05, comparative fit index (CFI) = 0.90, and incremental fit index (IFI) = 0.90: (b) when shared leadership and debate were set to load on a single factor, $\chi^2(508) = 2155.42$, RMSEA = 0.11, SRMR = 0.103, CFI = 0.75, and IFI = 0.75; (c) when shared leadership and decision comprehensiveness were set to load on a single factor, $\chi^2(508) = 2832.46$, RMSEA = 0.14, SRMR = 0.14, CFI = 0.64, and IFI = 0.64; (d) when decision comprehensiveness and decision quality were set to load on a single factor, $\chi^2(508) = 3123.15$, RMSEA = 0.16, SRMR = 0.18, CFI = 0.55, and IFI = 0.55; (e) when shared leadership, decision comprehensiveness, and debate were set to load on a single factor, $\chi^2(512) = 3456.22$, RMSEA = 0.18, SRMR = 0.20, CFI = 0.40, and IFI = 0.40; and (f) when all the variables were set to load on a single factor, $\chi^2(514) = 4567.28$, RMSEA = 0.21, SRMR = 0.22, CFI = 0.40, and IFI = 0.40.

For what concerns Hypothesis 1, results reveal a significant indirect effect between SL and decision quality via decision comprehensiveness (indirect effect = 0.086, 95% CI = [0.24, 0.08]). Therefore, Hypothesis 1 was supported.

About Hypothesis 2, results supported Hypothesis 2 by showing that the interaction between self-leadership and SL was negatively related to decision comprehensiveness ($\beta = -0.12$, $p < 0.05$). Therefore, Hypothesis 2 was supported.

Concerning Hypothesis 3, results demonstrate that the interaction between debate and SL was positively related to decision comprehensiveness ($\beta = 0.12$, $p < 0.05$). Therefore, Hypothesis 3 was supported.

5. Conclusions

Results show that SL positively influences the respondents' decision comprehensiveness which, in turn, leads to a higher degree of decision quality. However, results also demonstrate that individuals characterized by notably high levels of self-leadership may negatively influence the quality of decision comprehensiveness. In contrast, as hypothesized, it was additionally found that decision comprehensiveness is positively moderated by proactive and well-structured debates among the decision-makers.

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DIGITAL TRANSFORMATION AND TOP MANAGEMENT TEAMS: A SYSTEMATIC REVIEW

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KEYWORDS: Digital Transformation, Manager, Top Management Team, CEO.

1. Objectives

The objective of this review is to systematically analyze existing studies in the domain of digital transformation and top management teams (TMT). Provide a framework that identifies the main challenges, facilitating and hindering factors of digital transformation from the managerial field, which are identified in the literature, and that also allows providing an agenda for future research in the domain of the conjunction of digital transformation and top managers (Rojon, Okupe y McDowall, 2021).

2. Theoretical Background

2.1. Digital Transformation

Digital technologies are profoundly transforming organizations, their operations, products, and services (Berman, Korsten, & Marshall, 2016). The digital transformation of companies is positioned as a possible

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solution to current organizational challenges, in terms of adaptation, effectiveness and efficiency.

With regards to production and innovation, digital technologies have impacted industries differently (Soto–Acosta, 2020: 262). In any case, there is no single part of the economy, where at least an important part of the production and/or the consumption processes is not being affected or transformed by digitalization. Indeed, the very concept of the industry is changing (Schwab, 2016), from our initial idea of industries as stable areas of competition. This is because the digital nature of the value creation process is making the boundaries between industries much poorer. Firms are moving from one industry to another with new or renewed value proposals to customers based on digital technologies such as Uber and Glovo.

Although we know that the digital transformation of companies is positioned as a possible solution to current organizational challenges, to date we have a limited understanding of what it means to successfully implement a digital approach since technology, by itself, does not contribute value to the business, although it enables a new way of doing things (Kavadias, Ladas & Loch, 2016; Westerman, 2017).

2.2. Top Management Teams

Management research gives a key role to managers. For example, research based on upper echelon theory (Hambrick & Mason, 1984) has produced a great deal of knowledge about the backgrounds and characteristics of top managers and related them to specific consequences for the management of the firm.

Relevant studies in the field have examined the sociodemographic and underlying characteristics of top managers (Carpenter, Geletkanycz, & Sanders, 2004; Hambrick, 2007). While other perspectives have focused on the different functions carried out by leaders, which have an impact on the strategic actions of companies (Finkelstein *et al.*, 2009; Samimi, Cortes, Anderson, & Herrmann, 2020).

Both perspectives realize that senior executives have a crucial relevance (Hambrick & Mason, 1984, p. 194) to explain some of the relevant results of companies.

Despite the many studies investigating the antecedents and consequences of the characteristics and behaviors of senior managers, it is clear that aspects of digital transformation and digitization have rarely been addressed.

Empirical studies that have associated aspects of digitization with managers have observed the specific roles of the management team in digitization processes (Horlacher & Hess, 2016; Medcof, 2008; Singh & Hess, 2017) or the style of leadership (Cortellazzo *et al.*, 2019; Schwarzmüller *et al.*, 2018).

Existing literature recognizes the process of digital transformation in companies and their top managers have a significant impact on multiple domains. Furthermore, they demonstrate the need for more research on this wide-ranging and increasingly relevant topic.

3. Methodology

We employed a systematic review approach (Tranfield, Denyer, & Smart, 2003; Rojon, Okupe y McDowall, 2021; Wood & Mckelvie, 2015) to collect and analyze prominent research topics in the literature related to these areas, following established methodologies in the field (Gaur & Kumar 2018; Seuring and Gold 2012; Gaur and Kumar 2018; Meyer, Li and Schotter, 2020).

The literature collection consisted of two stages. First, in January 2022, the Web of Science Core Collection database was searched using the string: digital* transformation* (Title) and manager*, CEO*, TMT*, upper echelon*, top managers* (All Fields) including the title, abstract and word fields key (Bocconcelli *et al.*, 2018). These relatively broad terms were chosen to identify as many potentially relevant articles as possible within the initial search results before a process of manual removal of non-relevant literature was carried out.

A specific deadline for publication was not applied, due to the relative novelty of the research and that the seminal works on digital transformation in the company, in the context of the fourth industrial revolution, are relatively recent.

Additional filters were applied, where appropriate, to limit search results to articles from English-language peer-reviewed academic journals, excluding books, chapters, conference proceedings, and non-referred publications (Calabrò *et al.*, 2019). Only full articles that offered original conceptual or empirical insights were considered suitable for the study (Keupp *et al.*, 2011; López-Duarte *et al.*, 2015), omitting editorials or special issue introductions.

The second stage of the collection process involved a query of the article abstracts to confirm their suitability for review, before conducting a more comprehensive analysis of the article.

A final total of 204 articles are included in this review.

Key data points from all articles were then entered into an Excel spreadsheet to quickly identify and remove any duplicate results and to perform a descriptive analysis of accepted articles.

Our analysis focused on making sense of digital transformation and its managerial implications (Gioia *et al.*, 2013).

Using the inductive principles of grounded theory as a reference and using the qualitative research software ATLAS.ti, it was possible to document, codify and systematically analyze the sample of articles.

4. Findings

To systematically analyze the existing studies in the domain of digital transformation and managers, we have structured the data visually to represent our analysis until we reach the concepts and themes (Gioia *et al.*, 2013). The final data structure summarizes the interrelationships of first-order concepts, second-order themes, and aggregate dimensions on which we will propose a process model.

First-order concepts describe the key activities for digital transformation. After coding, we group them to form an ontological organization of the domain based on three higher dimensions (Gioia *et al.*, 2013). The nature and structure of thematic domains were determined using an inductive approach (Jones *et al.*, 2011).

Finally, we develop aggregate dimensions from the second-order themes that represent the main factors identified as facilitators and hinderers for digital transformation from the managerial perspective.

5. Conclusions

This ongoing study explores the conjunction between top managers and digital transformation. Especially trying to identify the facilitating and hindering actions involved in the task of directing companies in digital transformation processes. Some of our findings suggest that managers respond to digital transformation by acting in different ways: seeking to understand digitization, setting the formal context for digitization, and leading change. In addition, the findings emphasize that the support of the senior management team is essential in the digital transformation of companies. Overall, this study provides novel insights into the consequences of senior managers for business and establishes an initial foundation for research on senior managers in the digital age.

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IMPACT OF COVID–19 IN THE BIG ORGANIZATIONAL SEQUENCES

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KEYWORDS: COVID–19, E–Commerce, Pandemic, ICT Penetration.

1. Objectives

COVID–19 has presented human and humanitarian issues that have never been seen before. Many businesses around the world have risen to the challenge, responding quickly to protect employees and transition to a new way of working that even the most comprehensive business continuity plans had not anticipated. Leaders from a variety of industries will apply the lessons learned from this large–scale work–from–home experiment to reimagine how work is done — and what role offices should play — in new and innovative ways.

Due to the introduction of new means of purchasing and consuming habits, COVID–19 has resulted in a significant change in urban mobility as well as an unparalleled surge in e–commerce around the world. In this setting, urban logistics is critical to the sustainability triple bottom line.

Coronavirus has had a significant impact on global e–commerce and has altered the nature of business. According to studies, 52 percent of shoppers still avoid going to physical stores and congested places. Furthermore, 36% said they won't go shopping until they obtain the coronavirus vaccine.

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2. Theoretical Background

Coronavirus has varying impacts depending on the nature of the product, which implies that COVID-19 has a large influence on some items and a low impact on others. Because of the virus, individuals are avoiding going out, keeping social distance, and shopping and working from home, such as Walmart supermarket e-commerce, which has increased by 74 percent.

Furthermore, media usage has expanded during this period, and Facebook and Google have updated their capabilities to connect more people at once, such as Facebook's introduction of Messenger for 44 people, which competes with Zoom. Google, too, has released an updated version.

Social media is employed in the business sector, but during the COVID-19 pandemic, it is widely used in the business sector for effective work. The goal of this study is to figure out how social media affects new and expanding, but also existing businesses. The researcher wants to look into how social media affects business growth, as well as examine which social media tools and applications are employed for productive commercial activity.

Organizations could construct workspaces expressly for the types of interactions that can't be done remotely. Should 80 percent of an office be dedicated to collaboration rooms if the primary goal of the space is to support certain moments of collaboration rather than individual work?

3. Methodology

Experiments were conducted using information gathered from the internet, journals, articles, and personal experience. The findings revealed that the business sector is able to function or operate efficiently in the event of a pandemic. The majority of businesses use social media platforms such as Facebook, Twitter, Instagram, LinkedIn, and others.

Businesses are utilizing social media platforms to improve both the quality and quantity of their operations. As a result, we can conclude

that the business sector makes extensive use of social media platforms for efficient and continuous work. This research has implications for business owners, society, stakeholders, government officials, and competitors.

The COVID-19 Pandemic did not only have impact on the performance of the companies, but also the working environment, that a company could offer at the peak times.

We all have images in our heads of how a normal office should look and feel: a mix of private offices and cubicles, with conference spaces, pantries, and common amenities. Few offices have been created with the objective of supporting certain organizational goals. Although offices have evolved in various ways over the last decade, they may need to be completely redesigned and modified in the post-COVID-19 era.

4. Findings

Technology will play a key role in enabling employees to return to office buildings and operate securely before a vaccine becomes widely available in the future workplace. Organizations will need to keep track of which employees are allowed to come to work, when they are allowed to enter and take their seats, how often the office is cleaned, whether the airflow is adequate, and if they are moving through the space far enough apart.

COVID-19 has had a tremendous impact on global e-commerce, both positive and negative, but overall, e-commerce is increasing rapidly as a result of the virus. Customers were driven to utilize the internet and make it a habit in their daily routine as a result of the Coronavirus. Furthermore, e-commerce companies confront numerous obstacles, including extended delivery times, difficulty controlling movement, social distance, and lockdown. Even if the shipping and supply processes are now delayed, individuals are still buying since they have no other option. As a result of the epidemic, people are turning to technology.

Furthermore, certain products are in high demand on the market. Customers' expectations for hand sanitizers, toilet paper, disposable gloves, groceries, and dairy items are unmet by shops.

On the other hand, COVID-19 has had a negative impact on the tourism business, with flights being cancelled and international trade moving at a snail's pace.

The digital ecosystem is one of the most dynamic and R&D-intensive ecosystems in the European economy. In 2019, the industry employed almost 6 million people across the EU, accounting for 4.77 percent of the EU27 value-added, or €645 billion¹²¹. While the EU prioritizes the development of the digital ecosystem and a digital economy, as stated in the EU Digital Strategy¹²², the ecosystem was already degraded before the COVID-19 epidemic. In both the public and private sectors, it suffers from poor and fragmented investments, as well as slow acceptance of digital advancements.

5. Conclusions

During the second wave, the pandemic enhanced ICT penetration and digital adoption (digital adoption grew from 81 percent to 95 percent in the EU¹²⁴), but it also had severe effects on the digital sector, particularly during the first wave. Many countries' supply networks have been interrupted, causing manufacturing to stall or stop. A drop in demand hurt the manufacturing part of the sector's supply chains, in addition to hindered supply (e.g. demand for hardware). Constrictions of industries such as the car and hospitality (due to their face-to-face Business-to-Consumer (B2C) nature) further reduced demand, meaning lower need for digital manufacturing and service products^{125,126}. Nonetheless, as a result of the necessity for telework, the demand for digital infrastructure has skyrocketed.

This paper is going to give a lot detailed research about a couple of Specific big companies that had lived through the COVID-19 impact, had to switch to the remote methods of working and what kinds of consequences they had after their actions.

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CONSOLIDATION OF NEUROMANAGEMENT TO ORGANIZATIONAL STRATEGY AND BUSINESS COMMUNICATIONS, FOR ADEQUATE EMOTIONAL QUALITY IN WORKERS

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KEYWORDS: Neuromanagement, Emotional Quality, Strategy, Communication.

1. Objectives

Identify the contributions of neuromanagement for the success of the organization and the management of internal communication, in order to improve the emotional quality of employees.

2. Theoretical Background

The structural study of the brain and its functional behavior has been the motor of research for Neuroscience, seeking new ways to conceive the behavior of the brain in different social settings, such as business, school, politics, culture, and, for hence, society. As Lucuara (2016) maintains.

As the importance of Neuroscience increased, the different fields of application were expanded, among which is Neuromanagement. This

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concept lays its foundations in the explanation of a management model, with pillars of neuroscience applied to organizations.

Neuromanagement focuses its studies on company personnel and the skills acquired, by their own means and by external means, to be developed in the work environment and, thus, establish a relationship based on the cooperation of a multidisciplinary team and not on competition. individual.

Previously, knowledge was only applied to doing, today it is also applied to being (Lucuara, 2020), since emotions, feelings and styles of thought are introduced in the organizational training processes of companies that begin to articulate neuromanagement through its strategy, from training its collaborators in attitudes and skills, facilitating problem solving, R&D exchange, appropriate communication practices and improving the quality of emotions.

Many large companies were not prepared for an event as important as it was, and the situation caused by COVID-19 continues to be, since their control schemes did not contemplate a pandemic. This situation directed companies to adapt to new ways of working and treating their employees, in some cases having great positive and satisfactory changes in their business strategy. However, the question is to question these changes, how they have affected the way employees communicate and their labor relations, since any job and any company requires communication. That is why the changing dynamics in today's companies are constant, both in the way of inhabiting the company, and the way of managing the company.

Therefore, the identification of the advances of Neuromanagement to the business strategy could bring great advances in how to improve the communication processes between the members of the company, since emotions, decision making, communication and the ability to relationships are the daily life of the organization, and the reason for studying this discipline, from the behavioral point of view.

The contextualization carried out above leads to the question: How to identify the contributions of neuromanagement for the success of organizations and the management of their communications?

For his part, the researcher MacLean (1964) concluded that the structure of the brain was composed of three functions: the neocortical

system, the reptilian system and the limbic system. In this way, each brain has its specific intelligence, sense of time, space and a component of subjectivity; likewise, their own motor and memory capacity (MacLean, 1964).

Another theory that gained importance was Gardner's (1983) multiple intelligences, which, taking the cognitive abilities of the human being as a reference, divided them into seven multiple intelligences: Logical-mathematical, verbal, interpersonal, spatial, musical, kinesthetic and intrapersonal (Santana, 2018).

According to Geake (2008), the only thing Gardner did was make a compilation of the curriculum recommended by the philosopher Plato, which consisted of six subjects: Arithmetic, geometry-astronomy, logic, rhetoric, music and dance-physics. For the philosophical kings, moreover, meditation was recommended. Plato argued that knowledge was not given directly, since the identification of knowledge had not occurred (Regalado, 2020), which is why the author of the book "The Republic" makes his position about knowledge known. through the theory of ideas.

Continuing with the description of the existing intelligences in the human being, it is important to indicate that Elaine de Beauport (1996) instead of speaking of 3 intelligences associated with each brain as MacLean did, spoke about 10 intelligences grouped in the following way: The mental ones related to the neocortical system, which are rational, associative, spatial, visual, auditory and intuitive (Guzmán and Castro, 2017; the emotional ones related to the limbic system, which are affective, mood, motivational (Guzmán *et al.*, 2017; and behavioral ones related to the reptilian system, which are the basic ones, patterns and parameters (Guzmán *et al.*, 2017).

Continuing with the basic principles of Neuroscience, the great advances in the study of the brain have been consolidated thanks to the research carried out, in part, by the researchers and scientists mentioned above, who, with their successes, mistakes and confrontations of each other, allowed, and allow, to know the functioning of the brain.

It is conclusive to understand the functioning of science as an activity in constant progress, in which one discovery leads to another in an

apparently endless chain (NG Spain, 2014) and where the different researchers have opened the doors to a constant world of knowledge, in order to identify and decipher something as complex as the human being, his way of thinking, what causes his decision-making (Pedraza 2020) and the way in which these actions act, communicate in his brain and generate emotions in your daily life.

3. Methodology

The investigation of this work was developed in terms of a qualitative and descriptive study, in such a way that a study with a qualitative approach, such as the present one, has an impact on the assessment of phenomena with positive impacts (Tójar, 2006) on the organization.

In data collection, a critical, comprehensive and interpretive analysis was chosen. Additionally, the analysis of the most outstanding categories in the interviews where the oral language of the employees is reflected is based on theories that have served as guides and the search for data, study and analysis (Jiménez and Comet, 2016).

The sample collection processes for this investigation were carried out through interviews and observation, using technology, virtual platforms and the collaboration of some members of the organization. The interview was applied to managerial staff and middle managers of the organization that is the protagonist of this study.

For this research, the determining approach is descriptive and hermeneutical, because the way of approaching the main topic leads only to work from the interpretative notions of the interviews conducted with employees. According to Cabrera (2005) hermeneutics can be understood as: The action of meeting and dialectical crossing of all the information relevant to the object of study that emerged in an investigation through the corresponding instruments, and that in essence constitutes the corpus of results of the investigation research.

Application	general question	Specific questions	General purpose	Specific goal	Categories	Subcategories	Technique	Instrument
Colombia	How to identify the contributions of neuromanagement for the success of organizations?	How to apply the basic principles of neuroscience and neuromanagement in the organization?	Identify the contributions of neuromanagement as a business strategy for the success of organizations	Describe the basic principles of neuroscience and neuromanagement	neuromanagement	cognitivism	Interview	Interview Question Guide
		How does the use of neuromanagement impact the organizational strategy of a company?		Establish the strategies to be carried out to potentiate the brain as an ally of the organization.		thinking styles		
		How is the organizational communication model regarding neuromanagement specified in the internal strategy?		Specify the organizational communication model	Organizational climate	Multiple intelligences		
						Communication		
						Strategy		

4. Findings

The application of the research was carried out in a company dedicated to Colombian agriculture, where its structure is based on generating a good working environment. This is how it aims to corroborate the empirical applicability of the impact of neuromanagement, taking as a starting point the behavior of employees.

The interviews carried out with the collaborators are presented, which are the object of the investigation, to respond to the categories raised in relation to this study, as can be seen in the coding of the matrices made.

5. Conclusions

At the end of this research study, it was possible to specify the importance of having a flexible model in terms of managing the organization, since when contrasting the information obtained through the interview and observation, it was evidenced that trust, flexibility and good communication are fundamental pillars, to strategically contribute to a good organizational climate, adequate decision-making and an improvement in the quality of employee emotions.

Introducing neuroscience studies to business strategy allows employees to understand, through their way of thinking and doing the business, since the information obtained from the interviewees is significantly consistent with established theories in neuromanagement.

As stipulated by the different directors, it can be concluded that organizations that do not adapt to the new model of conceiving the company as a scenario where the quality of emotions and healthy coexistence must be involved as part of the integrity of the collaborator, do not they will be able to have a stable human resource in the new world business order.

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SOCIAL PREFERENCES AND STRATEGIC INTERACTION: IMPLICATIONS OF RECIPROCAL FAIRNESS FOR THE OPTIMAL INCENTIVES PROVISION

ANASTASSIA ZANNONI¹

KEYWORDS: Decision Making, Strategic Interaction, Heterogeneous Preferences, Reciprocal Fairness, Incentives.

1. Objectives

Standard Economic Theory does not include the significance of social comparisons in decision making processes. As a consequence, Behavioural Economics attempts to integrate the logic of self-interest and perfect rationality by introducing hypotheses which are more consistent with actual human behaviours. In this framework, our purpose is to report the implications of reciprocal fairness for the optimal incentives provision. The analysis provided shows the significant differences, especially in terms of efficiency, between the predictions of self-interested model and those relating to the application of the model by Fehr and Schmidt (1999). This paper, therefore, aims to a deeper understanding of human behaviour in the strategic interaction field.

2. Theoretical Background

Behavioural Economics acknowledges human complexity and recognizes the importance of a better understanding of how people make

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decisions and interact. In other words, behavioural economists attempt to expand Standard Economic Theory, based on the rational and individualistic instinct of the *homo oeconomicus*, by building alternative models that better explain human behaviour in the real world.

In order to discuss the main implications of Behavioural Economics, we can start from the Theory of Rational Choice under certain conditions. According to this theory, a decision maker has got preferences over allocations of material outcomes and these preferences satisfy some rationality properties, namely completeness and transitivity. In other words, faced with a list of alternatives, a rational agent always chooses the solution which maximizes his/her utility function. Thus, through the Theory of Rational Choice, we can provide a main definition of rationality.

Consequently, Behavioural Economics addresses two sets of issues concerning the definition of rationality mentioned above.

On the one hand, Behavioural Economics recognizes that it is necessary to consider bounded rationality phenomena which could prevent the pursuit of the optimal choice (Simon, 1947; Cristofaro, 2017).

On the other hand, even assuming rational agents, behavioural economists study what shape the individual utility function argument can take when people are facing a specific decision problem. In other words, we want to go beyond the restrictive interpretation in which an individual, by choosing the option that maximizes her/his utility function, is always concerned exclusively with her/his own material result.

For this reason, Behavioural Economics also study models related to Social Preferences, which include that decision makers could also be interested in social comparisons.

Most importantly, this knowledge can be easily applied in many economic domains.

For instance, Standard Contract Theory does not include fairness and reciprocity considerations in the optimal incentive provision, because it assumes that the contractual players are only concerned about their own material gains. For this reason, starting from the study developed by Fehr, Klein and Schmidt (2001), we are interested in analysing more deeply the interaction between heterogeneous preferences and the strategic (contractual) environment. These considerations, in turn, can

be very useful in several contractual contexts; e.g., in order to achieve better performance in the workplace, to improve relationships between a leader and the team members as well as to set a firm's policy which allowing both for the reduction in employee theft and the raising of employees' general morale.

3. Methodology

The introduction of Social Preferences into economic agents' utility function has startling implication, especially in the strategic interaction field. Thus, starting from Social Preferences models and using a Behavioural Game Theory approach, we can explore more in-depth all those situations in which the final outcome of a decision problem depends on the states of the world, as well as on the choices taken by at least two agents.

To carry out these types of studies, the experimental method is the main support for the analyses; that is, through empirical evidence, behavioural economists rethink the basic assumptions of Standard Theory. Indeed, there are numerous experimental evidences that systematically refute self-interested models and, in particular, they show that a lot of people are strongly driven in their choices by Social Preferences. Especially, economics actors are often concerned about fairness and they exhibit the desire to reciprocate as well.

Therefore, using the inequity aversion model developed by Fehr and Schmidt (1999) and keeping in mind a strategic interaction context, we analyse the case in which individual preferences are affected by earnings allocation among players; i.e., the case in which the effect of reciprocal fairness mechanisms on preferences depends on resources distribution.

4. Findings

By applying inequity aversion model (Fehr and Schmidt, 1999) to some moral hazard problems, Fehr, Klein and Schmidt (2001) show

that perfectly complete contracts, which are optimal when all players are purely self-interested, may be much less efficient when there is a minority of actors who care about reciprocal fairness mechanisms. On the other hand, incomplete contracts, which are doomed to fail in the light of Standard Contract Theory, may be the most profitable option where there are some fair-minded players.

Since these theoretical findings are supported by experimental evidence, it is possible to refute Standard Contract Theory approach in order to optimize performances in any contractual environment. In other words, considering that there are at least some players who are interested in reciprocal fairness considerations, an incomplete contract may rely on fairness and reciprocity as an enforcement device. Not surprisingly, indeed, experimental evidence shows that this enforcement mechanism can be very effective, and that the large majority of players used it quite successfully.

This automatically leads to a functional relationship between contractual incompleteness and performances which depends on the distribution of preferences among the economic agents, as well as on the frame of material payoffs (i.e., contractual environment).

5. Conclusions

The reported analysis suggests that concerns about fairness should be taken into account when designing optimal incentive schemes.

Overall, experimental results show that there exists a relationship between contractual incompleteness and performances and, above all, that people are perfectly aware about the value of reciprocal fairness when they choose their strategy in a moral hazard context. Very briefly, we would like to point out that an incomplete contract seems to be more efficient than a less incomplete one, because it is less complete and thus gives players more freedom to reciprocate.

Therefore, by considering reciprocal fairness preferences when designing incentive systems, we may get a performance improvement which could be exploited in many economic domains, e.g., in the interactions between firm and its stakeholders (Abatecola, 2014).

More generally, if we think about the economic system, as well as the corporate system, we can note that the effect of interaction among economic agents is the core of the systems' efficient conduct. Consequently, in order to achieve cooperative or coordinated behaviour, it may be essential to take into account the dynamics regarding social preferences in the strategic interaction field; that is, both to study the distribution of preferences among the actors and to properly design incentives policies which encourage the desired behaviour.

In conclusion, we think that, starting from Behavioural Economics, an abundant array of research questions awaits those scholars who are interested in providing a better explanation of the actual human behaviour in the strategic interaction field.

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UNDERSTANDING THE ORGANIZATIONAL COMMUNICATION IN NONPROFIT ORGANIZATIONS: A PARTICIPATORY ACTION RESEARCH

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KEYWORDS: Npos, Organizational Communication, Action Research, Knowledge Transfer.

I. Objectives

In recent years, the Non-Profit Organizations (NPOs) have been attracting the attention of scholars and policy makers. NPOs are subject to constant changes in society. For this reason, NPO managers must adopt and implement new managerial practices. In fact, NPOs are complex organizations, which are based on shared values (e.g., trust, friendship and solidarity), for which classic managerial and HR practices are not completely effective. At the same time, NPOs have scarce and limited monetary resources. Another element of complexity, NPOs act in complex socio-environmental contexts and often replace or supplement public welfare policies. Despite the vast academic literature on NPOs, many aspects are not analyzed. First of all, in organizational theory and management studies, it is possible to find numerous definitions for an NPO.

This study is based on the definition of NPOs as an organism of individuals who associate with a purpose of solidarity and improve the quality of the community's well-being.

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The aim of this study is to understand the impact of implementing new organizational communication tools in NPOs.

For this reason, NPOs are called upon to respond to new organizational challenges, typical of profit-oriented organizations. In particular, the goal of this study is to understand the process of implementing the social report, as an organizational communication tool from the perspective of knowledge management (KM).

2. Theoretical Background

The non-profit sector is made up of numerous heterogeneous organizations in terms of size, activity and ability to adequately manage resources and assets. Furthermore, NPOs are knowledge-intensive organizations (Lettieri *et al.*, 2004). Several studies (Quagli, 2001; Lettieri *et al.*, 2004; Oliveira and Pinheiro, 2021), have focused on knowledge transfer and sharing management activities within NPOs.

NPOs must implement new managerial paradigms with the aim of improving their performance and relations with the external environment. For this reason, organizational communication, from the perspective of the KM, represents one of the managerial tools available to the entire organization. Organizational communication is the process of transferring information, ideas and knowledge between different people, organizational units or organizations. Organizational communication involves all levels of the organization (macro, meso and micro level).

3. Methodology

The study is based on a qualitative approach according to the criteria and instructions suggested by Yin (2013). The observation of a case study is particularly appropriate to the context and to achieve the purpose of the research (Bamberger, 2000 — someone on organization method). The analysis of a case study allows you to analyze the complexity of the phenomenon as it allows you to take into account the specificities of the organizational context. In fact, NPOs have very particular organizational and contextual characteristics. NPOs are based

on the sharing of values (trust, commitment and solidarity) and traditional knowledge management practices have many limitations.

The information and data were collected through semi-structured interviews, company documentation and focus groups. The plurality of sources has allowed privileged access to information and a better quality of the information obtained (Benbasat, 1984; Zardini *et al.*, 2016, p.67).

The information for this research was collected starting from January 2021. The time frame in which the research is about 8 months. Consistently with the participatory action research approach, a team of researchers was actively involved in the process of implementing new organizational communication tools. The involvement and the actions carried out were broken down into the analysis, diagnosis and intervention phases (Paoloni *et al.*, 2018; Vesperi *et al.*, 2021)

The case study under analysis is an Italian NPOs, established in 2018 and has its main office located in an area with a high rate of unemployment and school dropout. The NPOs carries out its activities in the training sector of socially fragile subjects, in particular, young people with learning problems or at risk of early school leaving.

Currently, NPOs supports over 200 school-age children, with approximately 27 educational programs. About 35 volunteers are involved in the activities of the NPOs.

4. Findings

The study presents several results. It is possible to define the results from the perspective of academic, practical and methodological contribution.

Under academic contribution, the study is based on the existing nebulous literature on the subject of NPOs. The first difficulty that researchers encounter is the definition of NPOs. By changing the definition of NPOs, the characteristics investigated and the analysis perspective can change. The results of the study are intended to contribute to the debate, within the KM studies, on NPOs.

From a practical point of view, the results of the study highlight the phases and main obstacles that NPOs encounter in the implementation of the social report, as a tool for organizational communication and knowledge management. The characteristics of NPOs influence organizational communication tools.

From a methodological point of view, the results highlighted the effectiveness of participatory action research in complex organizations, such as NPOs. In fact, the active involvement of researchers and support in the implementation phases of the new organizational communication tool made it possible to recover privileged and solid information. At the same time, it was possible to collect feedback quickly. Finally, participatory action research allows to create a climate of trust and collaboration with the managers of the NPOs.

5. Conclusions

This study analyzed the implementation process of new organizational communication tools within an NPO. Under the KM perspective, organizational communication is being implemented with the aim of disseminating and sharing knowledge with internal and external stakeholders. In particular, a social report of the NPOs was created, favoring two aspects. The first aspect is based on sharing knowledge with the outside world, with the aim of transmitting information to external stakeholders.

The second aspect is based on sharing knowledge with volunteers, with the aim of transmitting knowledge on the social results achieved.

The NPO, through a process of active participation of researchers, has introduced new knowledge management practices by improving organizational efficiency and effectiveness. This study is not without limitations. The main limitation is determined by single-case study observation.

Future research on the subject should be aimed at deepening organizational communication in NPOs, through empirical observations.

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TEAM AUTONOMY AND ORGANIZATIONAL SUPPORT, WELL-BEING, AND WORK ENGAGEMENT IN THE SPAIN COMPUTER CONSULTANCY AREA: THE MEDIATING EFFECT OF EMOTIONAL INTELLIGENCE

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KEYWORDS: Team Autonomy, Organizational Support, Emotional Intelligence, Well-Being, Work Engagement.

1. Objectives

The aim of this paper is to analyse the impact of autonomy at work and organizations' support for their employees on employee well-being and, ultimately, their commitment to their work, and how employees' emotional intelligence mediates between these constructs.

Different aspects can influence employee well-being and have an impact on their professional performance and degree of organizational commitment. Being aware of these aspects and understanding how they can influence employees is key if we want to keep staff motivated.

2. Theoretical Background

2.1. Autonomy at Work, Organizational Support, and Employee Well-Being

Different studies have analysed the relationship between autonomy at work, organizational support, and employee well-being (Timms *et al.*, 2015).

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The concept of work autonomy refers to the ability of the practitioner(s) to make their own decisions relating to his work, autonomy is one of the most important aspects of work flexibility (Lee & Xia, 2007).

Several studies indicate that increased work autonomy is important for promoting both work effectiveness and employee well-being. Work autonomy has been listed as a predictor of well-being in the workplace (Kompier, 2003).

Perceived organizational support has a positive influence on employees in inducing them to help to achieve for their company objectives (Rhoades & Eisenberger, 2002). Previous studies (Timms *et al.*, 2015) indicate that providing a supportive environment in the company has an impact on increasing employee satisfaction and well-being.

We believe that the implementation of adequate organizational support and job autonomy will have a positive impact on the well-being of workers.

H1. There is a positive relationship between team autonomy and perceived organizational support and employee well-being.

2.2. *The Mediation of Emotional Intelligence Between Job Autonomy, Organizational Support and Workers' Well-Being and its Direct Relationship with These Aspects*

Emotional intelligence is composed of a set of skills for perceiving and regulating emotions and being able to use these emotions to improve one's own and others' performance (Cote & Miners, 2006). Emotional intelligence involves the ability to control and use feelings and emotions, to guide our thinking and actions (Huy, 1999).

Different studies have associated emotional intelligence with well-being, some of which consider emotional intelligence as a predictor of well-being (Bar-On, 2005).

In this paper we want to demonstrate how emotional intelligence, in addition to having a direct positive relationship with employee well-being, also has a partial mediating relationship between job autonomy and the organizational support perceived by employees and their well-being.

- H2. There is a mediating relationship of emotional intelligence between team autonomy and perceived organizational support and employee well-being.
- H3. There is a relationship between employees' emotional intelligence and their well-being.

2.3. Workers' Well-Being and Commitment to Work

The concept of work engagement can be defined as a state of well-being, of an affective or motivational nature (Bakker *et al.*, 2008); it can also be seen as the opposite of burnout. Several studies have found a significant relationship between work engagement and well-being or personal fulfilment (Shimazu *et al.*, 2015) as well as with job satisfaction and a decrease in employees' intention to change (Schaufeli & Bakker, 2003).

- H4. There is a relationship between workers' well-being and their work engagement.

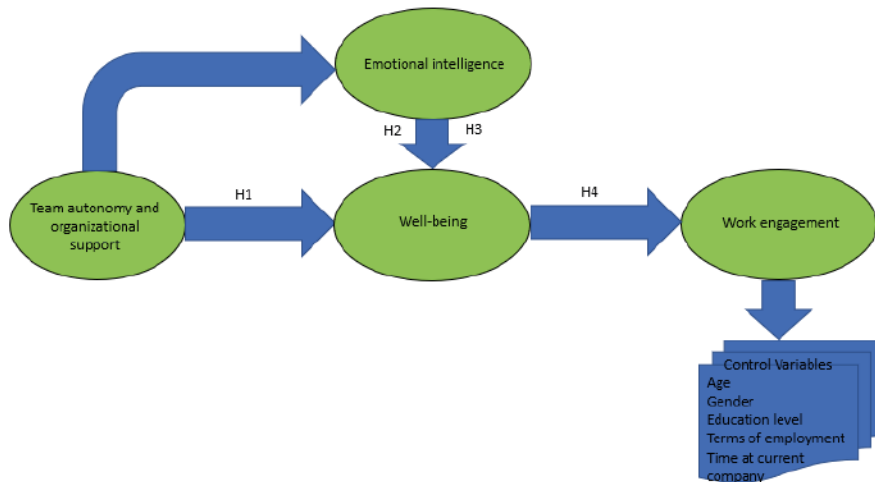


Figure 1. Research model.

3. Methodology

In order to carry out this study we used a questionnaire composed of 32 questions. The questionnaire was distributed among 1000 professionals from Spanish IT sector during 2020. We finally left with 281 correctly completed questionnaires.

For the data analysis, a quantitative model was used which was validated by using the PLS–SEM method in the SmartPLS3 software as well as the IBM SPSS tool, which was used for the analysis of the socio-demographic data.

4. Findings

The PLS–SEM method was selected due to the complexity of the model to be analysed and the reliability and predictive power of this method. The model was evaluated by validating different factors of the model; thus, we can observe that the significance level of the model is 95%.

The internal consistency was assessed through Cronbach's alpha together with determining the composite reliability of the constructs to be analysed. The convergent validity was assessed through the indicator reliability and the average variance extracted (AVE), while the discriminant validity was assessed via the Fornell–Larcker criterion. Cross-loadings between the indicators and latent variables were also assessed. To validate the internal consistency of the model we checked that all the variables reached an adequate Cronbach's alpha value, as can be seen in Table 1.

It was verified that the composite reliability (CR) values are adequate, reaching values ranging from 0.890 to 0.938, as can be seen in Table 1.

Table 1. Factor loadings, means, standard deviations, reliabilities, and average variance extracted. SOURCE: Own elaboration.

Construct	Item	Mean	SD	Factor loading	Cronbah's Alpha
Team autonomy/ Work Support	B10(SQ001)	3,534	1,183	0,774	0,908
	B10(SQ002)	3,342	1,221	0,801	
	B10(SQ003)	3,548	1,221	0,766	
	C10(SQ001)	3,228	1,338	0,827	
	C10(SQ002)	3,039	1,294	0,867	
	C10(SQ003)	3,036	1,322	0,866	
	G10(SQ001)	3,164	1,196	0,631	
	G10(SQ003)	3,463	1,105	0,696	
Self-emotion appraisal	D10(SQ001)	4,128	0,869	0,826	0,857
	D10(SQ002)	4,096	0,899	0,922	
	D10(SQ003)	4,089	0,939	0,886	
	D10(SQ004)	4,096	0,953	0,709	
Others' emotion appraisal	D11(SQ001)	3,637	0,864	0,831	0,84
	D11(SQ002)	3,940	0,914	0,876	
	D11(SQ003)	4,057	0,893	0,714	
	D11(SQ004)	3,786	0,818	0,864	
Use of emotion	D12(SQ001)	4,050	0,805	0,758	0,835
	D12(SQ002)	3,911	0,920	0,790	
	D12(SQ003)	4,046	0,957	0,870	
	D12(SQ004)	4,181	0,801	0,849	
Regulation of emotion	D13(SQ001)	3,822	0,947	0,868	0,911
	D13(SQ002)	3,808	0,906	0,927	
	D13(SQ003)	3,452	1,072	0,837	
	D13(SQ004)	3,758	0,898	0,922	
Well being	G11(SQ001)	4,082	0,791	0,821	0,825
	G11(SQ002)	3,801	0,904	0,764	
	G11(SQ003)	3,833	0,835	0,740	
	G11(SQ004)	3,263	1,008	0,720	
	G11(SQ005)	3,712	1,003	0,783	
Work engagement	I10(SQ001)	3,633	0,905	0,909	0,868
	I10(SQ002)	3,833	0,936	0,916	
	I10(SQ003)	3,890	1,034	0,840	

Convergent validity, which is validated through average variance extracted (AVE), indicates that a set of variables represents a single construct. This value must be equal to or greater than 0.50; as can be seen in Table 1.

Discriminant validity is used to determine to what extent a construct differs from others and is measured mainly through the Fornell–Larcker criterion, which considers the amount of variance that a construct captures from its indicators (AVE): this must be greater than the variance that the construct shares with other constructs. Table 2 shows the observed values.

Table 2. Discriminant validity – Fornell–Larcker criterion. SOURCE: Own elaboration.

	Others' emotion appraisal	Regulation of emotion	Self-emotion appraisal	Team autonomy/ Organizational support	Use of emotion	Well-being	Work engagement
Others' emotion appraisal	0.824						
Regulation of emotion	0.359	0.889					
Self-emotion appraisal	0.349	0.418	0.840				
Team autonomy/ Organizational support	0.219	0.274	0.196	0.782			
Use of emotion	0.338	0.380	0.388	0.156	0.818		
Well-being	0.377	0.492	0.454	0.365	0.503	0.766	
Work engagement	0.306	0.370	0.371	0.493	0.379	0.637	0.889

Table 1 also shows the loading factors of the different variables, their mean values and standard deviation. The loading factors of all the variables have acceptable values.

The structural equation model used in this study is shown in Figure 2.

For the proposed model, a second-order construct was created using the hierarchical component method. Based on this analysis, we can see how autonomy and organizational support at work have a positive influence on employee well-being (0.196) and how employee well-being has a positive influence on employee work engagement (0.637). We also observe that emotional intelligence has a positive influence on employee well-being (0.573).

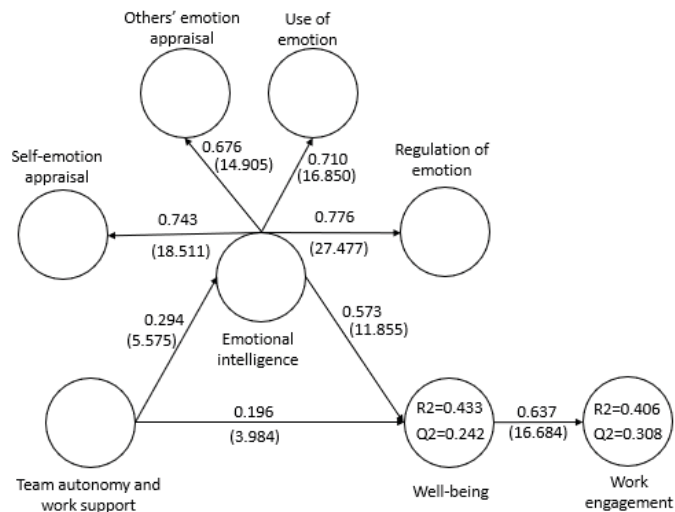


Figure 2. Structural equation model.

The inclusion of the variable emotional intelligence between the variables autonomy and support at work and well-being reduced the strength of the direct relationship between these two variables from 0.366 to 0.196 (Figures 2 and 3).

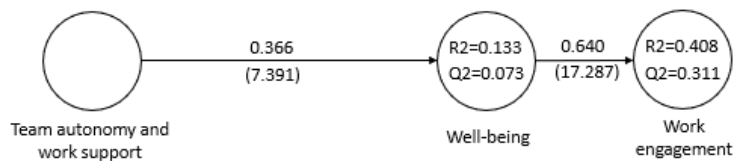


Figure 3. Structural equation model without mediation.

To calculate the magnitude of the indirect effect we must consider the value of the variance accounted for (VAF), which is used to determine the magnitude of the total indirect effect. In our model, a calculated VAF of 0.462 was obtained.

5. Conclusions

According to the results we are able to state that independence and support at work have a positive influence on employees' well-being (H1). Well-being has a positive impact on employees' work engagement (H4), while emotional intelligence significantly mediates between team autonomy and organizational support and employee well-being (H2). We found that emotional intelligence has a positive impact on employee well-being (H3).

This finding is in line with our expectations: workers who have autonomy and feel supported in their work will enjoy greater well-being. We also observe that well-being has a positive impact on employees' work engagement. Finally, there is also a positive relationship between emotional intelligence and employee well-being, which is in agreement.

The inclusion of the mediating effect of emotional intelligence between autonomy and job support and employee well-being proves how this variable positively affects the relationship between the other two variables.

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HOW SATISFIED ARE WE WITH COMPENSATIONS & BENEFITS PACKAGE? ANY COVID-19 IMPACT? THE CASE OF ALBANIA

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KEYWORDS: HR, Compensation and Benefit Package, Benefit Types, COVID-19.

I. Objectives

This study aims to achieve the following objectives:

- To identify what type of compensations and benefits Albanian employees receive and how satisfied they are.
- To investigate the impact of COVID-19 in the compensations and benefits package.

Human resources are considered from many authors as the key to success for any organization. As such, organizations aim to hire the best candidates in the labor market and keep them satisfied and motivated. Compensation and benefits (C&B) package play a crucial role into achieving such an aim.

To this end, the researchers undertook a study in early 2019. Soonafter, the pandemic started, and the entire world was on crises. While trying to manage COVID-19 directly impacting their employees, companies were trying to identify strategies to keep up with their

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business, re-shape their business model and adopt their HR practices to respond to the impact of the pandemic.

Thus, we wanted to continue our study and further investigate the impact of COVID-19 on compensation and benefits package.

2. Theoretical Background

Borgatti & Li (2009) stated that earlier studies on human capital management had emphasized the role of individual (thoroughness, dependability) (Dudley *et al.*, 2006; Iddekinge & Ployhart, 2008) and job characteristics (skill variety, task significance and identity) (Grant, 2007) in the results of employees, like their performance, absenteeism, turnover, etc. Hollenbeck & Jamieson (2015) emphasised the necessity of having a Human Resource department.

Having the best employee possible means developing and implementing strategic human resources plans. An important step to achieve such objectives is offering a C&B Package (Portolese, 2018). «Employee compensation and benefits include all forms of pay going to employees and arising from their employment, besides their regular wages or salaries» (Dessler, 2019: 275). They are comprised of direct financial payments (the 13th payment, bonuses, profit-sharing, etc.) and indirect financial payments (medical coverage, health insurance, paid vacations, etc.). According to Leibowitz (1983), benefits are classified into three categories, first one nontaxable for private utilization including health insurance, sponsored lunches, etc. The second and third categories are taxable. In the second category are benefits such as life insurance, which the employer can offer at a low cost, due to the quantity rebates, while the third category comprises of paid time off.

Benefits are an important element of employees' aggregate compensation, so they affect their welfare and financial well-being (Kristal, 2017). Although the job itself might be a motivator to continue working and increase the company performance, most of the employees would choose not to. Another option would be to only choose jobs which are enjoyable for the employee, but not essentially required by the community (Lazear, 2018). Regarding the different industries,

some offer more benefits than others. Specifically, the manufacturing, finance & insurance, and public administration and governance lead the industries which offer the most. Employees who work for retail and accommodation & food industry receive far less benefits (Greenwald & Fronstin, 2019).

The Society for Human Resource Management conducted a survey in 2018 to see the link between strategic human resource application and employee job satisfaction and engagement. The results showed that 92 percent implied the benefits were critical to their job satisfaction. A correlation between benefits and employee retention was found also. Twenty-nine percent indicated that the package of compensation offered would affect their choice of looking for another company to work for, while thirty-two percent stated that the reason why they loved working in the company was exactly the benefits and compensation they received.

What about the pandemic? According to Kristie et al (2020) compensation and benefits area that will be impacted by lost revenue and increased costs because of the pandemic is employee benefits. While, Kilgour (2020) says that public-sector pension plans, especially those that were already struggling will face a stormy sea due to the pandemic. Other authors such as Baskin and her colleagues preface the review with consideration of employment trends leading into 2020, including modifications to the traditional 40-hour, Monday–Friday workweek, adjustments in minimum and subminimum wage, and growth in the gig economy. Next, they examine the response to COVID–19 in the US, summarizing legislation have examined the opportunities of suggesting intervention opportunities for HRM professionals concerning the traditional workweek, worker classification, employee benefits, and workplace safety.

3. Methodology

This study follows a positivist philosophy and a deductive approach. Empirical data in 2019 are collected through a questionnaire The sam-

ple of this study is comprised of 12% of total Albanian employees (according to INSTAT, 2019), working in different public and private institutions, in Albania, aged from 21–65 years old, married or single, with or without children. The ones who are self-employed are not included here. Two types of sampling strategies are used in this research paper, both non-probability ones: Convenience and Snowball sampling. The questionnaire is distributed online through social media and e-mail, while interviews are conducted one on one in person or through phone calls. The hypothesis (H1) of this study aims to prove if Albanian employees are considerably satisfied with their received C&B Package. Descriptive and inferential statistics are used to analyse the data and present findings of this study.

The same questionnaire is re-distributed post pandemic and semi structured interviews are being conducted to investigate the impact of COVID-19.

4. Findings

This study proved that most of Albanian employees do know what a Compensation and Benefits Package is, in contraire to the common believe. The ones who had no knowledge were a small number, less than 20%, and even in USA according to a study, employees don't have a full understanding of every type of benefit. More than half admitted to have a very good knowledge of the health benefits they received, while only fifty-one percent of the non-health benefits (Greenwald & Fronstin, 2019). This is a step forward in implementing the reward system with benefits.

With regards to C&B package, as shown in table 1, 31,5% of the participants were considerably satisfied with their Compensation and Benefits Package, followed by 25,2% who were greatly satisfied. Only 7,1% were extremely satisfied compared to 15% who were not at all.

Table 1. Satisfied with the Compensation and Benefits Package. SOURCE: SPSS output on number and percentage of employees who are satisfied with their C&B Package.

	Frequency	Percent
Not at all	19	15%
Somewhat	27	21.3%
Considerably	40	31.5%
Greatly	32	25.2%
Extremely	9	7.1%
Total	127	100%

Table 2 shows a negative t -value, which indicates that the mean of the sample is smaller than the mean of the hypothesis, in absolute value it is larger than the critical value ($1.149 > 0.253$). That proves H_1 and indicates that the employees are considerably satisfied with the C&B package. Since the mean of the sample is smaller than the one of the hypothesis, the employees are less than considerably satisfied with their Compensation and Benefits Package.

Table 2. Employees are considerably satisfied with their C&B package. SOURCE: SPSS output on one sample t -test of employees who are satisfied with their C&B Package.

Test Value=3	Satisfied with C&B
T	-1.149
df	126
Sig. (2-tailed)	0.253
Mean	2.88
Mean difference	-0.118
Std. Deviation	1.159

Further analysing the data, we found out that among most received benefits as shown in fig.1, are Medical Insurance with 57,5%; Year-end bonus (13th payment) with 48%; followed by Bonuses with 44,1%. While, the least received benefits are Extended Paternity leave with 0,8%; Day-care service with 1,6%; Stock option with 3,1%.

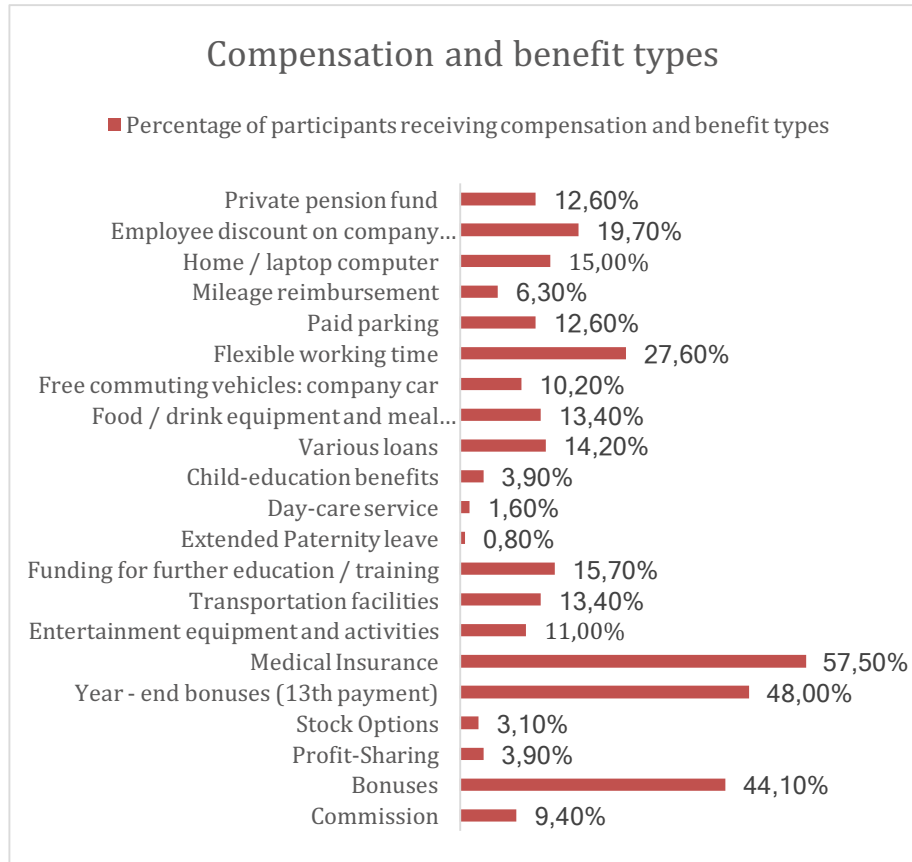


Figure 1. Types of Compensation and Benefits. SOURCE: Authors.

Regarding the impact of COVID–19, some preliminary findings of semistructured interviews conducted post pandemic show that not much has changed in the Albanian C&B package, beside the “Flexible working time” mentioned by all the interviewees.

5. Conclusions

This study shows that employees in Albania have some knowledge on the concept of the C&B Package, but if asked to explain the different types of received benefits and on what criteria they receive them, the

workers might experience difficulties. The reason why it happens is because the individuals who are responsible for providing clear and thorough information regarding the types of benefits offered when a new employee is hired, or when changes are made to the Pay Plan, often do not do their job. This, combined with the fact that employees are receiving less benefits compared to what they would prefer to, contributes to their dissatisfaction with the Compensation and Benefits Package. The most received benefits before the pandemic are medical insurance, year-end bonuses and bonuses, where the highest received percentage is below sixty percent, while COVID-19 has shifted flexible working hours as the most received one.

Moreover, while around 72% of employees state they would prefer to receive bonuses, and only 42% do, it shows a mismatch between what they expect and what they actually receive, referring to Expectancy theory of Vroom (1964).

Finally, there are no previous studies related to employee compensation for the Albanian labor market. Due to the significant role of employee recruitment and retention, further studies have to be conducted in this field.

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EXPLORING JOB-RELATED SKILLS THROUGH INTERNSHIPS BEFORE AND DURING COVID-19

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KEYWORDS: Internship, COVID-19, Skills.

1. Objectives

The objectives of this study are:

- To explore skills acquired and enhanced from internship experience in Albanian labor market
- To identify challenges faced during internship
- To identify gaps among academic preparation and internship experience
- To explore the impact of COVID-19 in internship experience

The aim of this study is to investigate why students pursue an internship experience, what are the benefits and challenges from the intern perspective, as well as to identify skills acquired and overall impact of the internship experience into bringing students' career path.

2. Theoretical Background

In today's competitive labor market internships are becoming a must. The purpose of an internship is to help students transit smoothly from

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the classroom environment to the real business environment, by applying theoretical knowledge and skills gained throughout their academic years. Through an internship period the students can acquire new technical and personal skills or improve their abilities. Moreover, a successful internship can provide to students a chance of future employment, by shaping in him professional and personal skills as a promising candidate.

As stated in [John, T. R., Addy, N., Herring, C., & Polledo, D (2013); Hergert, Michael (2009); Saxena, Kavita, Drishtikon (2012); Maertz, Carl P, Jr; Stoeberl, Philipp A; Marks, Jill (2014); Knouse, Stephen B; Fontenot, Gwen (2008) and D'Abate, Caroline P; Youndt, Mark A; Wenzel, Kathryn E (2009)], a number of authors have evaluated the benefit of internship experience to grade point average (GPA) when students return to the class (Koehler, 1974; Knechel & Snowball, 1987; Giacomino, 1990; English & Koeppen, 1993; Myring, Bloom, & Shortridge, 2005). According to Wellesley, Mass (2007) organizations need to do a better job of allowing interns to follow-through on tasks, keep them busy with meaningful work; and increase project responsibilities as their internship time progresses.

Interns should also be given the ability to set priorities, and be able to explore careers in other areas of the organization. Knouse, Stephen B; Fontenot, Gwen (2008) and other studies examined the usefulness of an internship experience for career exploration and reality testing, socialization into the norms of the workplace and its technical competencies, improvements in knowledge acquisition and insight in preparing students for entry into the profession, and emotional sharing (Kane, Healy & Henson, 1992; Eyler, 1992; Maletta, Anderson & Angelini, 1999; Martin & Wilkerson, 2006; Beck & Halim, 2008; Liu, Xu & Weitz, 2011; Green, B., Graybeal, P. & Madison, R., 2011). For example, Martin and Wilkerson (2006, p. 130) examined the attitudes of students and found that an internship experience strengthens "the professional and business context of accounting students" facilitating "more active, independent learning and problem-solving by students" and is related to career enhancement more than academic performance. While Pasewark, W.R., Strawser, J. R., & Wilkerson, J. E (1989) and Reding, Kurt F, CMA, CPA, CIA; O'Bryan, David, CMA, CPA, CFE (2013) conclude that better development of interns' professional skills,

knowledge, socialization and other abilities during the internship have a positive impact in job opportunities after the successful completion of the internship.

However, few studies have considered the contribution of internships in the light of developing students' skills or helping them to acquire new ones. This study explores the role of internship in relation to students' skills and identifies the most important ones by grouping them into personal and professional skills.

The study is of importance because the number of internships is increasing. Over 94% of colleges of business offer some type of internship to their students (Weible, 2010), and the rate of utilization has increased significantly for accounting majors, from 39% in 1995 to 60 percent in 2006 (Nelson, Vendrzyk, Quirin & Allen, 2002; Nelson, Vendrzyk, Quirin & Kovar, 2008), cited in Kurt F, CMA, CPA, CIA; O'Bryan, David, CMA, CPA, CFE (2013).

Recent studies explored internship outcomes during COVID-19: many internships were either delayed, canceled, or shifted online (Bugis, 2020; Pretti *et al.*, 2020; Aucejo *et al.*, 2020; Briant and Crowther, 2020; Cunningham, 2020; Dani *et al.*, 2020; Dent and White, 2020; Holt-White and Montacute, 2020; Paonessa, 2020; Salas-Provance *et al.*, 2020; Wall, 2020), as stated in Cecilia Woon Chien Teng, Raymond Boon Tar Lim, Dana Wai Shin Chow, Suganthi Narayanasamy, Chee Hsiang Liow, Jeannette Jen-Mai Lee (2021).

Finally, this study aims to identify skills acquired from internships, understand challenges faced during this experience especially during COVID-19 time and reveal best experiences from undertaking internships.

3. Methodology

This study follows a deductive approach. Empirical data are collected through a cross sectional study, including cohorts from 2016–2020. The instruments used consist in semi-structured interviews, written reports from the students and mentor evaluations at the end of their internship period. Semi-structured interviews conducted with students

helped to capture insights how the internship experience went and how students felt on the role of internship towards the acquired skills and overall benefits, while reports and mentor evaluations are used for data triangulation purpose.

The study involved students majoring in Business Administration, Marketing, Finance and Accounting but also in International Relations at the first private university in Albania. Students that take the internship course at UNYT are senior students from which few have previous working experience.

From the sample of students involved in the study, the majority have family businesses, which gave an initial indication to the researcher that the primary reason why these students are having an internship is not job placement, which is confirmed at the end of the study.

4. Findings

The study explored the reasons why students pursue the internship and explored the skills acquired and developed after the internship. The results brought up the top three reasons why students pursue internship experiences such as gaining real work experience, building resumes, and learning new skills, as confirmed in John (2013) and Reding *et al.* (2013). But differently from previous studies, the results showed that employment is not the primary reason, instead, the desire and need for further skills development is considered from students as crucial for an internship. Besides, this study identifies the challenges and gaps students face during their internship.

“Things were clearer to me and more understandable through practice and as a result, now I feel more confident in the job that “I am going to do in my future”, as stated in Moghaddam, J M (2011) I feel more confident because in my free time I try to work with my father and I am more confident where I work and when I do mistakes I can find them by myself and not interrupt him and saying where is my mistake. In accounting the most difficult thing is where to refer to find your mistake” — stated someone else, as found in a couple of authors.

Table 1 below lists skills acquired and enhanced by the students during their internship period. The data are shown in number of students as well as the percentage from the sample of 50 students involved in the study.

Table 1. Skills acquired and enhanced from internship. SOURCE: Author.

Skills	No. of students	% of students
Team work	39	78.0
Goal orientation	31	62.0
Ethical issues	41	82.0
Work under pressure	11	22.0
Time management	32	64.0
Work-school/life balance	27	54.0
Orientation for future career	26	52.0
Self confidence	32	64.0
Communication	47	94.0
Relationship building	42	84.0
Creativity	8	16.0
Efficiency and effectiveness	19	38.0
Responsibility & patience	24	48.0
Open-minded	31	62.0
Visionary	17	34.0
Decision making	33	66.0
Problem solving	29	58.0
Analytical and Technical skills	35	70.0
Technological skills	35	70.0

From the data shown in the table above, we can notice that 94 % of the students involved in the study have mentioned “*communication*” skills to be improved after the internship. 84% of the students mentioned “*relationship building*” and “*ethical issues*” by 82% student as skills acquired from the internship experience, while 78% mentioned “*team work*” as an important skill learned from internship. “*Analytical and Technical*” skills and the “*technological*” skills are acquired by 70% of the students. “*Decision making*” are developed by 66%, “*self-confidence*” 64%, “*open-minded*” and “*goal-orientation*” by 62% of the students.

Least developed skills are “*work under pressure*” mentioned by 22% and “*creativity*” by 16% of the students.

One of the biggest challenge students faced during their internship was *integration with colleagues* and *socliализing*, Cecilia Woon Chien Teng, *et al.* (2021) and Knouse (2008), mentioned from 49% of the students involved in the study.

Another challenge though was to *complete the tasks in time, with efficiency and high quality*, John *et al.* (2013) and Moghaddam, J M (2011), mentioned by 31% of students. Other students, 17%, said they had to have legal knowledge and follow up all *legislation* issues in every step.

5. Conclusions

The study achieved its research objectives and state that the experience as an intern was very useful and important not only for their future career but as an experience that will always remember, although a challenging one. Moreover, the study showed that job placement is not the primary reason why students pursue an internship. Rather, skills and knowledge gained, John, T. R., Addy, N., Herring, C., & Polledo, D. (2013) and

Reding, Kurt F, Cma, Cpa, Cia; O'bryan, David, Cma, Cpa, CFE (2013), were mentioned (93% of the students) as the main reason that pushed students to go for an internship experience. The majority of the students said that they wanted to try themselves in a working environment to gain practical experience and develop their skills and acquire technical knowledge (Pasewark, Strawser & Wilkerson, 1989; English & Koeppen, 1993; Maletta *et al.*, 1999; Gault *et al.*, 2000; Swanson & Tomkovick, 2012) in Reding, Kurt F, Cma, Cpa, Cia; O'bryan, David, Cma, Cpa, CFE (2013).

Internships help students to grow in their future career plans, Cecilia Woon Chien Teng, *et al.* (2021), stated 81% of them and they recommend to all their fellow students to look for an internship, because it is very profitable and you learn a lot from it. Starting by the discipline, you have to be punctual at your arrivals at the work, being careful at everyday communications with colleges, helping each other

and being interactive till to being punctual to all of your duties meaning that to finish them on time and not to procrastinate. Moreover, you learn how to deal with problems in working place and by learning you grow more and more. So, if a possibility is given to you for an internship do not lose that opportunity.

The study found out that “communication” skills Saxena, Kavita, Drishtikon (2012), Knouse, *et al.* (2008) and D’abate, *et al.* (2009) mentioned by 94% of the students, are the most developed skills during the internship, followed by “relationship building” Maertz, (2014) and Knouse, *et al.* (2008), from 84% of the students. While the importance of ethical issues, 82% of the students, also mentioned by Cecilia Woon Chien Teng, *et al.* (2021) was something that was not learned in classrooms.

Finally, this study came up with some valuable advices and recommendations for the future interns.

One advice is to take the internship as a very good possibility for their future, to be eager to take every opportunity given by the University because not only it helps them gain real life experiences from excellent institutions but also helps them connect theoretical knowledge gained through courses, with real life professions.

Secondly, an intern should be motivated and not be ashamed to ask if he is facing any uncertainty during his/her work. Instead, be dedicated and show willingness to work. It is quite normal for an intern sometimes to do something wrong or not in the correct required way. Besides, they should try and do things by their own. Asking questions and showing willingness to learn new things for sure will be considered as a good thing by the mentor, which in a near future might be your college. Students suggest to their fellows *“to feel free to express themselves or their thoughts within the staff because they would be surprised of the friendly people they would meet and it would make the experience a useful one”*.

Last but not least advice for future interns is to choose the internship relevant to their studies.

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LOSS AVERSION IN PERFORMANCE MANAGEMENT: FROM SYSTEMATIC LITERATURE REVIEW TO THEORETICAL FRAMEWORK

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KEYWORDS: Loss Aversion, Performance Management, Systematic Literature Review, Theoretical Framework.

1. Objectives

Loss aversion is a human distortion having considerable negative impact on businesses' activity. As most important, loss aversion generate rigidity into the organisations, thus ending up in inability to proactively respond to external economic changes and technological advancements (Tversky and Kahneman, 1991).

Indeed, experiments are being driven on probability and impact of specific cognitive biases throughout several businesses' decision-making processes to manage their performances (Hristov *et al.*, 2022).

Nevertheless, the specific role of loss aversion, despite its massive presence in economic literature (Schmidt and Zank, 2005), is not well defined within the context of Performance Management (PM). To the best of our knowledge, it is still missing a full review of human loss aversion impact on businesses as well as possible managerial solutions to it.

Therefore, the relevance and the related research gap on the topic inspired authors to write this paper, which is focused on the following research questions:

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RQ₁) What is the role of loss aversion in performance management literature?

RQ₂) How to moderate loss aversion in performance management practice?

2. Theoretical Background

Theoretical concepts used in the paper essentially belong to two separated research area: cognitive biases and specifically milestones on loss aversion, and performance management.

2.1. *Loss aversion*

Economics science does not definitively concern stable, well-defined are rational behaviors (Kahneman *et al.*, 1991). Indeed, business agents' rationality is limited (Simon, 1957) and their choices are affected by an evolving number of cognitive distortions (Cristofaro, 2020). In this view, Kahneman *et al.* (2011) focus on revealing and addressing specific cognitive biases affecting professionals during decision-making processes.

Among cognitive biases, loss aversion is receiving increasing attention in the whole economic literature, and it is essentially due to its ability to explain apparent paradoxes in theory of traditional choices (Schmidt and Zank, 2005). Tversky and Kahneman (1991: 1047) effectively draw an operative definition of loss aversion as follows «the basic intuition concerning loss aversion is that losses loom larger than corresponding gains». Over the years, loss aversion was firstly described within the prospect theory framework (Kahneman and Tversky, 1979), and then used to analyze differentiated phenomena such as endowment effect (Thaler, 1980), the equity premium puzzle (Benartzi and Thaler, 1995), and the status quo bias (Samuelson and Zeckhauser, 1988).

2.2. *Performance Management scenarios*

Performance Management (PM) overcome past tasks of simply measuring performances. Indeed, PM incorporates the initial strategic

phases of setting mission and vision, prioritizing objectives to be turned into Key Performance Indicators (KPIs), posing desired targets, evaluating performances to assign potential rewards, and evaluating eventual processes of change (Ferreira and Otley, 2009). Thus, PM can be considered a real decision-making process potentially hosting managers' cognitive biases, which deserve to be analysed in the view of their effects on companies' performance (Hirstov *et al.*, 2022). Indeed, the role of cognitive and behavioural factors on the Performance Management System (PMS) has received more and more attention over the years (De Waal, 2006).

3. Methodology

Authors firstly aim at providing a critical analysis on the role of loss aversion in PM literature (Rq1). To answer this first research question, it is performed a Systematic Literature Review (Tranfield *et al.*, 2003; Hristov *et al.*, 2021) of existing studies on the topic. In order to follow an authoritative and rigorous procedure, from the choice of data source to final selection of papers, authors adopted the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) (Moher *et al.*, 2009). On papers collected, authors 1) draw trends about researchers' attention on loss aversion in business literature according to years and geographical locations, 2) analyse research settings used for experimenting and/or analysing loss aversion in businesses, 3) perform a manual summary of literature to come up with relevant findings (categorised as follows: conditions for appearance of loss aversion all over business activity, consequences of human loss aversion on companies' outcomes, managerial approaches to reduce loss aversion within the organisations).

On the other hand, results derived from SLR allowed authors to answer to the second research question (Rq2), therefore it is provided a theoretical framework to provide organisations with a useful managerial tool to address loss aversion and its consequences on the business' performances.

4. Findings

In the view of answering to the first research question (Rq1), important findings are reported. Firstly, research demonstrated a slightly growing trend of attention on the human loss aversion over the years and particular attention was paid by researchers affiliated to US universities. Secondly, research settings for analysis of human loss aversion are mostly concentrated on business environments, anyway decision science and economic scenarios are even considered. Thirdly, from the manual summary of literature important elements emerged: management changes and external-oriented initiatives look to be the ideal theatre for emerging of loss aversion, this generates reticence to convincingly change direction and consequent difficulty to gain competitive advantage, while idyllic managerial approaches to reduce loss aversion within the organisations are concentrated on measurable actions but still scarce in practice.

In the view of answering to the second research question (Rq2), authors depict a theoretical framework that contextually sums up literature findings and suggest a managerial approach on these bases. This approach is mainly based on KPIs connected to specific objectives to pursue in most critical business scenarios identified.

5. Conclusions

Research on loss aversion has always been massive and it will likely continue for long time. In this context, business scenarios are the most attentioned due to the relevance of their performance outcomes. This paper provides a SLR to give a clear and critical view on these studies while offering managers a managerial tool to address human loss aversion and its effect in critical moments of companies' lifecycle here identified. Indeed, thanks to the use of specific KPIs fitting due situations, managers could realize and reduce negative effects of loss aversion on companies' ability to proactively change, to finally survive negative shocks and/or gain competitive advantages.

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PERFORMANCE AND THE PANDEMIC: THE CASE OF THE INSURANCE INDUSTRY IN ALBANIA

ANDROMAHI KUFO¹ AND ERIONA SHTËMBARI¹

1. Objectives

This study aims to give an overview of the Albanian insurance market, the indicators that affect the companies' performance, and how they have changed during the pandemic.

The increased importance of the insurance industry has taken place after its ownership changed from local to international, and foreign investors considered it a profitable sector under development. Following that, the insurance market has been well developed offering a variety of products and services and responding well to the market needs.

In addition, the Financial Supervisory Authority has been regulating and monitoring closely the insurance market, trying to ensure the most transparency to the investor's basis as well as making it an important part of the financial intermediaries and markets.

The insurance market offers mostly mandatory insurance products, but in the last decade, the necessity of concentrating on voluntary insurance has arisen. Several facts created this necessity including natural floods due to climate change, an increased number of earthquakes, and lately the pandemic that marked increased attention to life and health insurance. This study provides the framework of these changes from a historical perspective and supports it with quantitative information on the performance indicators of the insurance companies and by exploring how these indicators have changed over time. Results of it can help in

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designing better management strategies, mitigating risks, and approaching a customer basis that understands better the importance of insurance.

2. Theoretical Background

Surprising as it can seem, the first insurance company in Albania was the Italian “Societa Assicurazione Generale Fiume”, and next to it was the English one “Lloyd’s”. (Kume and Xhuka, 2010:96). At the beginning of 1991, the Albanian State held the Health Insurance Institute and the Savings Banks which after a merger and separation ended up forming the first traditional insurance company called Insig (Albanian Insurance Institute).

INSIG initially totally owned by the Albanian State and represented by the Minister of Finance, is a private company since 2004, among seven other non-life insurance companies, while the first private insurance company was established in 1999 under the name SIGMA. This was followed by the creation of the second private insurance company called SIGAL and finally, a competitive environment has started in the market. From 2001–to 2012, seven other private insurance companies were created: INTERSIG, ATLANTIC, INTERALBANIAN, EUROSIG, SIGAL, SICRED and ANSIG.

Foreign investors were attracted to the insurance market through Sigma and Sigal and currently the actual insurance market is regulated and plays an important role in the Albanian economy. The market share of the insurance companies as of 2021 is divided as follows (Statista, 2021):

Sigal Unica Group Austria (26.5%),
 Albsig (18.17%),
 Sigma Inter Albania Vienna Insurance Group (12.95%),
 Eurosigs (12.77%),
 Intersig Vienna Insurance Group (10.16%),
 Ansig (6.67%),
 Atlantik (6.43%), and
 Insig (6.35%) (Statista, 2021).

The activity structure of the insurance sector is divided between non-life insurance, life, and health insurance, and property and other insurance at levels around 70%, 13%, and 17% accordingly. The non-life insurance is the basic activity that generates more than 90% of the revenues of insurance companies.

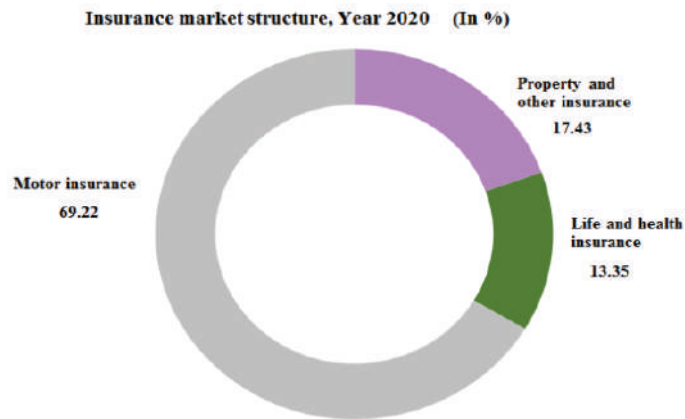


Figure 1. Insurance market structure for the Year 2020. SOURCE: Financial Supervisory Authority, 2021.

The division of the amount of gross written premiums by company in the first quarter of 2020 in Albania was as per the table below:

Company	Gross Written premiums (in EUR)
Sigal Uniqa Group Austria	7,160,488
Albsig	4,910,000
Sigma Inter Albanian	3,499,675
Vienna Insurance Group	
Eurosig	3,451,463
Intersig Vienna Insurance Group	2,744,472
Ansigt	1,801,789
Atlantik	1,737,398
Insigt	1,717,073

Studying the tendency of gross premiums, they have been on a continuous rise over the years in both life and non-life sectors, which has subsequently been followed by an increase in the gross premiums and claim payments. In continuance, this rise is highly correlated with the frequency and severity of risks required to be covered by the companies. As such it is of practical usage to measure the effects of risks and the effects that different factors have on the performance of the companies. This would allow companies to better align their management processes with reality and diversify as well as minimize risks, to boost their performance.

The impact of natural disasters on the profitability of insurance companies was also studied in a previous paper by Benali and Feki (2017), for Tunisia. They conclude that the negative impact of natural disasters is of a high value on the insurance companies' profitability. The variables that had the most significant effect on profitability were loss ratio, severity and frequency of natural disasters. Their study was conducted by firm and by year including a time horizon of five years 2008–2012.

Similar papers to Tunisian case were also done for Nigeria and U.S. The Nigerian paper, written by Olarinre and Gabriel (2020) studied the effects of claims management in the profitability of insurance companies, and found that net claims positively influenced profitability of Nigerian companies, while loss ratio decreased ROA by 4.36 %. The other paper, written by Viscusi and Born (2006), used a large dataset by state, firm and year, including a time horizon of 21 years, 1984–2004. It was revealed that unexpected catastrophes, under the term 'blockbuster', had positive effect on the loss ratio.

In general, every previous paper that have studied the effect of only natural shocks on the profitability of insurance companies, have concluded that ROA is negatively affected by their severity and frequency. In every previous paper, loss ratio has had a negative impact on ROA, and every country where such events happen, should take into consideration specific measures in order to reduce the catastrophic impacts they have not only in the insurance companies, but also in economy and lives.

3. Methodology

Using secondary data from the companies' financial statements and applying linear regression, this research measures how the performance of the companies is affected by different factors, including natural and economic shocks.

As a measure of performance and dependent variables, ROA and ROE are being used. The effects of shocks are captured by a dummy variable, while the other independent variables included loss ratio, firm size, expense ratio, and solvency ratio.

The models used are presented below:

$$ROA_{it} = \beta_0 + \beta_1 LR + \beta_2 SR + \beta_3 ER + \beta_4 FS + \alpha_i + \gamma t + \varepsilon_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 LR + \beta_2 SR + \beta_3 ER + \beta_4 FS + \alpha_i + \gamma t + \varepsilon_{it}$$

where;

- i. ROA: Return on Asset
- ii. β_0 : constant
- iii. $\beta_1, \beta_2, \beta_3, \beta_4$: beta coefficients
- iv. LR: Loss ratio
- v. SR: Solvency ratio
- vi. ER: Expense ratio
- vii. FS: firm size
- viii. i : Insurance Company; $i = 1, \dots, 13$
- ix. t : time period; $t = 2015, \dots, 2019$
- x. α : state fixed effects
- xi. γ : time fixed effects
- xii. ε : error term

4. Findings

Preliminary findings by applying this model suggest that variables of the loss ratio, expense ratio, and solvency ratio are all negatively impacting the measures of performance, with the first two being statistically important.

The model parameters shown below, reveal it is statistically significant. ROA is affected by Loss Ratio, Expense ratio and Size being the most important and statistically significant factors.

Table 1. Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.883 ^a	.780	.725	.015584906533890

a. Predictors: (Constant), FIRM SIZE, vit2016, vit2017, Solvency Ratio, vit2018, vit2019, Loss Ratio, Expense ratio

Table 2. ANOVA^a.

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.028	8	.003	14.198	.000 ^b
Residual	.008	32	.000		
Total	.035	40			

a. Dependent Variable: ROA

b. Predictors: (Constant), FIRM SIZE, vit2016, vit2017, Solvency Ratio, vit2018, vit2019, Loss Ratio, Expense ratio

Table 3. Coefficients^a.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.000	.011		.021	.984
Loss Ratio	-.325	.040	-.1362	-8.138	.000
vit2018	-.031	.008	-.421	-3.779	.001
Solvency Ratio	-.001	.005	-.020	-.169	.867
vit2016	-.032	.009	-.433	-3.694	.001
vit2017	-.031	.008	-.422	-3.721	.001
vit2019	-.028	.008	-.377	-3.419	.002
Expense ratio	-.276	.047	-.1511	-5.931	.000
FIRM SIZE	.015	.002	2.482	8.829	.000

a. Dependent Variable: ROA

Model parameters for ROE are shown below also confirming the significance of the model and exposing some variables being more important in the company's performance compared to others.

Table 4. Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.866 ^a	.751	.684	.048545161741922

a. Predictors: (Constant), FIRM SIZE, vitiz2017, vitiz2018, Loss Ratio, vitiz2019, Solvency Ratio, vitiz2016, Expense ratio

Table 5. ANOVA^a.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.213	8	.027	11.286	.000 ^b
	Residual	.071	30	.002		
	Total	.283	38			

a. Dependent Variable: ROE

b. Predictors: (Constant), FIRM SIZE, vitiz2017, vitiz2018, Loss Ratio, vitiz2019, Solvency Ratio, vitiz2016, Expense ratio

Table 6. Coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.046	.422		.108	.915
	Loss Ratio	-.991	.125	-1.176	-7.957	.000
	vitiz2018	-.065	.027	-.306	-2.436	.021
	Solvency Ratio	.043	.018	.290	2.321	.027
	vitiz2016	-.045	.028	-.211	-1.590	.122
	vitiz2017	-.073	.027	-.346	-2.694	.011
	vitiz2019	-.047	.027	-.224	-1.758	.089
	Expense ratio	-1.127	.158	-1.166	-7.129	.000
	FIRM SIZE	.049	.018	.353	2.715	.011

a. Dependent Variable: ROE

Firm size is positively affecting the companies' profitability and being statistically important, when using ROA as a depended variable. Loss ratio and Expense ratio are statistically important factors negatively affecting the performance of the companies. The regressions have shown, the years 2016, 2018, and 2019 have been the worst years negatively affecting the firms' performance compared to 2015 and this complies with the natural and economic shocks happening in these years, specifically:

1. In 2016, Albania had the worst year in natural disasters: the Shkumbin river flooded 12 regions in Albania, causing a problematic situation in the whole country. While during the summer of 2016, in Lezha city significant areas of forests were burned, endangering a large number of homes and lives of citizens. (data used from the Internal Displacement Monitoring Centre, in cooperation with the Norwegian Refugee Council.)
2. In 2017, a bad year regarding natural shocks, such as droughts of prolonged meteorological, agricultural, and hydrological types, especially during June, July, and August, across the whole country, with tremendous negative impacts on the sectors of energy as well as agriculture; increased occurrence of forest fires that caused major damages to forestry economy and environment; and floods recorded at the beginning of 2017 due to extreme rainfall.
3. In 2018 and 2019, not only floods and fires were present, but also earthquakes. Two earthquakes, in September 2019 and November 2019 have created a big challenge for insurance companies and their profitability as well.

As it is not for all what had happened during 2015–2019, in the year 2020 a pandemic has knocked on all businesses' doors and the effects of the last earthquake of November 2019 were to affect 2020's performance too. As part of another kind of shock rather than natural or economic, COVID-19 has found all businesses and people unprepared. The same was for insurance companies too.

During this time insurance companies had to pay around 33 million euros to cover the earthquake damages and to cope with the pandemic's new demand for life and health insurance. Effects on their performance are expected to affect more negatively the performance measure of ROA and ROE for the year 2020.

5. Conclusions

Factors affecting the performance of insurance companies are divided into internal and external key performance drivers.

Significant as they can be: profitability, capital adequacy, and expenditures affect negatively the companies' performance, as such they should better manage their internal resources and operational activities.

On the other hand, at a large scale natural and economic shocks affect their performance too and they need to be more prepared in absorbing losses. A special case is their management under the pandemic and the way this years' performance will also affect the next year to come.

The importance of the insurance market in Albania has been increasing lately, due to the new challenges that the millennia have brought us: climate change with more natural disaster events, pandemic situations, and even wars lately.

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HUMAN RESOURCE INFORMATION SYSTEM FOR IMPROVING ORGANIZATIONAL DEVELOPMENT CONCERNING PRIVATE MANUFACTURING

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KEYWORDS: Human Resource, Information Technology (IT), Enterprise Resource Planning (ERP).

1. Objectives

To study the HRIS, its concept and its applications. To study the effectiveness of HRIS in various HR practices in various private manufacturing and service organization.

2. Theoretical Background

Information is an essential component of management. On-time, accurate and relevant information is essential for planning & decision making.

The recent decade has seen enormous growth in information technology (IT). There has been a revolution in hardware, software, data management and transmission technology. The information system is a set of organized procedures that provide information to support planning & decision-making when performed. It evolved from simple busi-

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ness computing applications in the 1960” to Enterprise Resource Planning (ERP). One of the critical modules considered in ERP is Human Resource Information System (HRIS) or Human Resource Management System (HRMS) module. Human Resource Information System, from now on, is directed as “HRIS”. Human Resource Management System is a database software package tool to meet business needs and individuals needs. HRIS brought transparency to HR activities. Now a day “s, many private manufacturing and service sector organizations implement HRIS in their organizations for fast accessing information and decision making. This tool provides fast results and makes effective organizational development.

Due to globalization, it is the need of the hour to have an HRIS system which is an essential factor of any successful business. Human beings are now widely recognized as an essential resource in any association. It is treated as an asset of the organization. An organization is made by its people, and its people also break it. So, there is a need to have proper communication and strategy to manage this indispensable resource of the organization through computer-based software. In addition, the use of technology has decreased the time the HR staff has to spend on operational activities, thus freeing up their time to spend on strategic activities to gain a competitive advantage.

HRIS, which requires capital and technical resources to design and execute, is believed to create a competitive advantage for organizations through improved accuracy, timely and quick access to information, cost protection and innovation. The impact of HRIS is on the time allocation and workflow of human resource staff. e.g., HRIS eliminates work duplication and streamlines processes, allowing human resources staff to spend less time on administrative tasks and more time on strategic decision-making and planning. This reallocation of time for human resources staff creates increased efficiency and departmental response time. As a result, HRIS improve a business organization’s knowledge management and, in turn, increases competitive advantage in the marketplace and stakeholder satisfaction.

Information Systems can be theorized into three systems: Transactional Processing Systems (TPS), Management Information Systems

(MIS) and Expert Systems. MIS has multiple subsets, such as Executive Information Systems and Decision Support Systems.

This paper reflects collected discourse available in Human Resource and Information Technology impact on private manufacturing organizations. The study's objectives are to study the HRIS, its concept and its applications. To study the application of HRIS implemented in various private manufacturing organizations and evaluate the effectiveness of HRIS for organization development. The researcher uses the quantitative method. The research is dependent on primary data. Only no system is perfect. Every system has some limitations. The analysis will be restricted to private sector manufacturing and service sector organizations, and the Reliability of data will depend on the respondents' honesty.

3. Literature Review

There has been a revolution in hardware, software, data management and communication technology. An information system is a set of organized systems that, when executed, provides information to support decision-making. An information system is generally required to communicate effectively with the environment. HR actions are needed to automate so that collection, process, and disseminate accurate information to the right person are possible via HRIS. Due to globalization, Human resource management is an essential factor of any successful business.

Tannenbaum, S.I. (1990) "Human Resource Information Systems", An HRIS is a frequent method for collecting, storing, maintaining, recovering and validating data needed by an association for its HR.

Nicholas Aston Beadles II & Christopher M. Lowery (2005), "The impact of Human Resource Information Systems: An Exploratory Study in the Public Sector" "In this paper's author ascertained that HRIS decreases cost, enhances communications and decreases in time spent on everyday activities should create an atmosphere wherein the Human Resource (HR) department would play a more strategic role in

the association. The idea has been that HRIS would allow for the HR function to become more efficient and provide better information for decision making.

Sandeep Krishnan, Manjari Singh (2006–07) “Issues and Concerns in the Implementation and Maintenance of HRIS” This article looks at the issues and concerns faced by Indian associations in implementing and operating HRIS. This study explores the necessary success factors and weaknesses in implementing an HRIS. The problems are rooted in mainly two factors. One is the fact that the HR unit lacks knowledge about HRIS and hence is not able to explain the requirement of the system. Poor examination is a continuation of this problem. Second is the lack of importance given to the HR department in the communities.

Matt Minahan (2010)⁴ “OD and HR”. In this paper, the author emphasizes the relationship between OD and HR. It also focuses on how IT and HR leader’s help’s useful to form and implement the organization strategy and budget function. The purpose of OD and HR together is to sharpen the system’s boundaries, which brings standardization to the system. It is the need of an hour to establish OD function independently to know the limits and to work independently.

Akansha Chauhan, Sanjeev Kr. Sharma and Tarun Tyagi, (2011) “Role of HRIS in Improving Modern HR Operations”. As per the authors’ view, the use of Human Resource Information Systems seem to play an essential role in Human Resource Management (HRM) because HRIS functions improve HRM in terms of administrative purposes and analytical purposes. As a critical component of an organization-wide integrated information system, a strategic HRIS will provide important information about human resources needs and capabilities; this information will assist the management team in establishing the organizational mission and setting goals and objectives in motion. The conclusion made by the authors, HRIS adds competitive value to the organization as a whole and to the HRM department specifically.

Kristine Dery, David Grant and Sharna Wiblen (2006), “Human Resource Information Systems(HRIS): Replacing OR Enhancing”, In this article author found that three main challenges are hindering the implementation and use of HRIS: maintaining organizational attention, addressing the complexities associated with people control and

manage user acceptance of the change associated with the system. This challenge demonstrates that the material, functional aspects of technologies such as HRIS are involved and make them inquiring about introducing and operate.

Flynn, Simone I(2008) "Human Resource Information System", This article focus on Human Resource Information System and how Human Resource A business organization uses an information System to underestimate human capital. Businesses, governments, and non-profit organizations worldwide rely on human resource information systems (HRIS) to facilitate information sharing and facilitate downsizing and reengineering efforts. In the final analysis, HRIS increase competitiveness in the marketplace by improving the efficiency of HR operations produce more varied HR-related data and reports.

4. Methodology

The study's objectives are to study the HRIS, its concept and its applications.

To study the application of HRIS implemented in various private manufacturing organizations and evaluate the effectiveness of HRIS for organization development. The researcher uses the quantitative method. The research is dependent on primary data. Only no system is perfect. Every system has some limitations. The analysis will be restricted to private sector manufacturing and service sector organizations, and the Reliability of data will depend on the respondents' honesty.

5. Findings

As per Figure 1 HR 1, 48% of HR Manager/Officer/Executive Manufacturing feel Excellent in the requirement for total automation of all the activities in your organization. Additionally, 48% feel Very Good or Good. Moreover, 4% feel average.

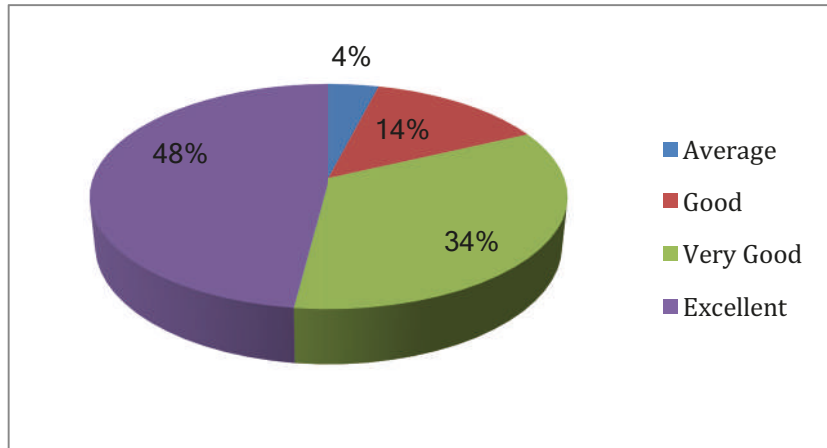


Figure 1. Do you feel the requirement for total automation of all the activities in your organization?

As per Figure 2 HR 2, 22% of Excellent HR Manager/Officer/Executive Manufacturing organizations feel MIS is used in Human Resource Department. Additionally, 68% feel Very good or good, 6% feel average, and 4% replay poor.

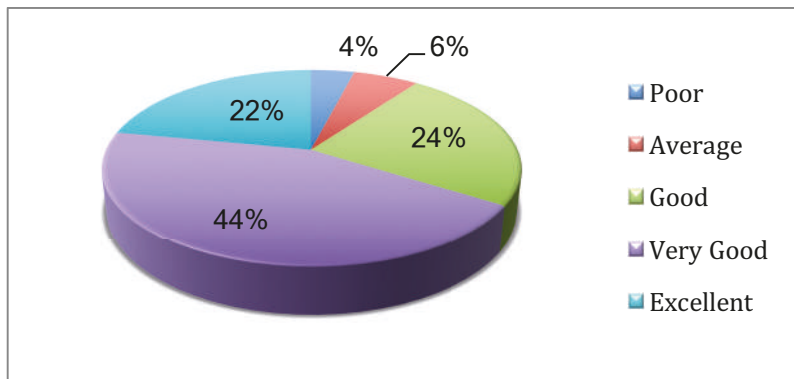


Figure 2 Do you feel MIS used in Human Resource Department?

As per Figure 3 HR 3, 24% Excellent HR Manager/Officer/Executive Manufacturing organization MIS can be used in Recruitment activity or policy. Additionally, 70% feel Very good or good, 4% feel average, and 2% replay poor.

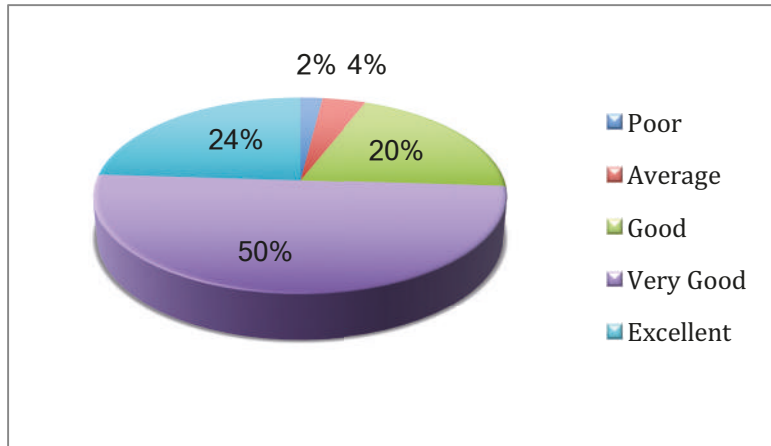


Figure 3. What extent MIS can be used in Recruitment activity or policy?

6. Conclusions

The researcher has made an in-depth and comprehensive study on the aforementioned topics.

The majority of Private Manufacturing Organizations are using HRIS at the operational level. The researcher also concluded that HRM uses DSS for human resource planning like recruitment activity and policy development at the administration level.

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COVID-19 EXPERIENCED BY SMALL AND MEDIUM-SIZED FAMILY BUSINESSES AND FUTURE GROWTH PROSPECTS: RESULTS FROM A PILOT STUDY

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AND MICHELE MILONE¹**

KEYWORDS: Family Business, Family Firm, Internationalization, Expansion Process.

I. Objectives

The general objective of this study is to assess how much small and medium-sized family businesses (SMFB) are inclined to initiate internationalization processes. This objective was investigated by analyzing the differences between models of SMFB identified in Apulia, a Region of Southern Italy. Furthermore, the analysis confirmed how dynamic the definition of a family business is.

SMFB play a fundamental role as generators of wealth, making a substantial contribution to economic growth on a global level. In Europe and Italy, in particular, family businesses represent a significant percentage of the market, especially small and medium-sized and are collaborators of economic processes, if not always innovative, but certainly a guarantee of stability (Baschieri, 2014; Fang *et al.*, 2018).

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2. Theoretical Background

Family business is the most common form of business in Italy.

The presence of family businesses identifies small entities, but they do not represent the only observable reality. The report published by ISTAT in 2020, relating to the Permanent Census of Companies 2019 highlights the typical characterization of the Italian production system: three out of four companies controlled by one person or a family. In other words, family businesses represent 75.2% of Italian production units with at least 3 employees (777.398 companies out of a total of 1.033.737), 78.2% of micro-enterprises (3–9 employees), 65.6% of small enterprises (10–49 employees), 51.0% of medium-sized enterprises (50–249 employees), to reach 37% of large enterprises (250 employees and more), with a trend very similar to that of the previous decade of reference.

The national and international competition and the concentration of internal demand have led more and more Italian companies to look beyond the border to expand or consolidate their business (AUB Observatory, 2020). Starting an internationalization process is an effective strategy for entering the foreign market in order to support a long-term growth path. The data available to the AUB observatory show how, out of 15880 companies monitored, 26.8% have made at least one investment abroad.

The family businesses have used this growth tool (26.8% vs 20.3% of non-family businesses).

The study of internationalization strategies carried out by companies is a significant branch of managerial studies, in which the literature on international business is extensive (Bannò & Pisano, 2017). To this end, a basic explanation of the concept of internationalization was set out by Hitt *et al.*, 2007: “*Firms expand the sales of their goods and services outside their domestic borders to different geographic destinations and markets*”. The expansion choices are the result of the manager’s professional and cultural training and, based on these, the company will be more or less inclined to the start of internationalization processes.

3. Methodology

A study was conducted to test the responsiveness of family businesses, on a sample of 105 family businesses, ranging in size from micro (with less than 10 employees) to medium-sized (with less than 250 employees), located in Apulia Region and examined over the period February–April 2022. Since the interviewed sample is small compared to existing family businesses, further references were made to authoritative sources such as the Istat, Aidaf website, Asia database, Agenzia delle Entrate, in order to find key data.

To identify the size of the company, the number of employees was used, since having also interviewed companies not obliged to draw up financial statements, it was not possible to refer to turnover as well. The territorial scope of reference is the Apulia Region and from a sectoral point of view, the interview was addressed to companies that carry out very different activities, this to confirm that there is no single sector where the family business is prevalent since this phenomenon is valid for several sectors.

The period in which the survey was carried out is certainly characterized by uncertainties. The Coronavirus pandemic that hit the country, made it necessary for the Government to issue a series of restrictive measures on the movement of people and the suspension of economic activities defined as non-essential. For this reason, strong concerns and a mostly pessimistic attitude towards the future emerged during the interview, the data are therefore read taking into account the complex temporal moment.

3.1. Data collection

The data was collected taking into account the principles and procedures for the transfer of personal data in accordance with the provisions of the European Council 2016/679, on the protection of personal data (GDPR).

The online survey method was used to collect the information. The sample was carefully selected and based on the family nature of the company, using the surname when identical for several partners,

and the wording “brothers” inserted in the name of the company as a research yardstick.

Anonymity was guaranteed to all users who participated in the research.

The questions administered were 40, relating to several areas and typical aspects of the company, from the internal climate to the propensity for internationalization. 105 out of 130 SMFB responded to the survey, the percentage of data obtained was therefore considered suitable for proceeding with the evaluation and interpretation of the data. All the contributions of the participants were provided on an individual basis and do not necessarily represent the most shared opinion at the regional level.

4. Findings

The sectors in which the investigated companies operate are agricultural, commercial, catering, industrial, services, tourism, and construction. The SMFB analyzed also demonstrate unique facets. These differences are found in the particularity of the human capital that composes them, in the planned projects, and the approach to work in general.

In the SMFB investigated, the desire to leave the business to the future generations is always evident. Although it is often thought that in family business organizations there is a climate that is not always positive, it has instead emerged that, globally, within the SMBF the employees work in a serene way and the cases that complain of discontent are few. This would confirm the quality of relations between the parties, mutual loyalty, and the lack of obvious agency problems.

In most of the realities analyzed, the “first generation” is at the top of the company. This could be an important starting point, able to make people understand the general positive aura present in the respondents’ approach to business. According to what stated by Ferraro and Cristiano (2021), the best performances are obtained during the first generation. In subsequent generations, different dynamics may arise, precisely by virtue of the fact that the heirs may not be up to

the task they have received or may not want to follow the lines drawn by their predecessors, experimenting with new opportunities.

Furthermore, the study investigated the views on the SMFB pre-disposition to internationalize. Unfortunately, the percentage of subjects having relations with foreign countries is still low and concerns only 26% of the sample. In this regard, it was important to understand the reasons why such opportunities are not supported. Mainly, the causes of the lack of internationalization are attributed to the high costs associated with the operation, the fear of starting new investments, and 7% admit that they do not have the appropriate skills to initiate internationalization processes or to maintain them. Those who have permanent relations abroad do so mainly at a European level, confirming the theory of Bannò and Pisano (2017) of the pre-dispositions to investments in places relatively close in terms of culture, habits and trends. Furthermore, the interviewees indicated that, in 59% of cases, an external manager oversees the relations with abroad and entertains partnership with subjects located in countries to which they export or import, declaring to have further projects are underway aimed at internationalizing.

The agricultural companies in the sample are the ones that internationalize the most and give greater weight to the role of the “Made in Italy” brand, unlike the commercial ones that are more locally integrated. The latter, in fact, encounter several barriers to entry into foreign markets, including the incurring of heavy costs. It is clear that the results obtained confirm the literature state of the art. The dynamics investigated so far lead to see SMFB as organizations whose dynamics become predictable when it comes to issues such as the inclusion of external subjects, marketing abroad, the propensity to internationalize and generational succession.

5. Conclusions

In the light of this study on SMFB and its internationalization processes as a lever for growth, a first major difference needs to be explained. Family businesses differ from non-family businesses for: the

composition of the organization, the presence of intangible resources that are unique of their kind, the ability to reduce the entity of agency problems and, finally, for the techniques implemented to carry out the decision making and reaching foreign markets.

Family businesses represent an important slice of the market, being present on a large scale throughout the national territory.

In this regard, it was important to analyze the benefits that can be obtained following an internationalization process. Broadening one's views beyond national borders is perceived as one of the most complex topics to be addressed. Family businesses are born with the aim of business continuity and everything that is implemented is done aiming at this goal. The particularity of these companies also lies on the fact that the role of the family can generate better performance under the same conditions. The influence of equity on performance has proven to be strongly related to operational, extra-operational, financial, and extraordinary management, so as to provide a broad and concrete picture of the internal and external dynamics of the company.

Ultimately, the survey made it possible to extrapolate ideas to understand, in a practical way, the action of these small and medium economic realities. The interview results provide a snapshot of the reality experienced by family businesses. In most cases, they are all first-generation companies that operate in a peaceful internal environment, but little used to external investment. Few of them currently have relations with foreign countries, internationalize or make use of external figures to excel in specific fields. Overall, it can be argued that the results are in line with the typical expressions identified by the theories widespread to date in the literature. Extending this pilot study to other countries and various fields such as healthcare and family clinics will allow it to deepen knowledge on the subject and examine the process following changes in globalization and digitization that facilitate internationalization processes.

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ENTREPRENEURSHIP SPATIAL DIMENSIONS AND THE EFFECT OF PUBLIC R&D POLICY

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KEYWORDS: Entrepreneurship, Innovation, Location, Public Expenditures on R&D.

1. Objectives

Drawing on a set of 407 innovative enterprises, this paper investigates, first, the spatial dimension of innovative entrepreneurship distribution in different locations units (cities, industrial areas, universities and scientific & technological parks) and second, the effect of regional GDP R&D expenditure on entrepreneurship locations.

2. Theoretical Background

The institutional theory beginnings are in works related to the influence of government regulations that are implemented in a society and how modify behavior and habits of the population. The union of both generates an institutional framework in which economic activity takes place (Commons, 1934; Veblen, 1904).

DiMaggio and Zucker (1988) introduced the concept of Institutional Entrepreneurship that they defined as all those actions implemented enterprises or individual entrepreneurs that has its origin in any institutional support.

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Moving forward into a more complete theory, Mubarak *et al.* (2019) define entrepreneurship ecosystem as an environment with a set of factors as human capital, culture, infrastructures of accessibility or government policies that facilitates entrepreneurial activities. For Acs *et al.* (2017) an entrepreneurial ecosystem approach reflects the existence of actor's interdependence in an ecosystem that created add value. This approach allows the analysis of those environmental actors, linkages, how create add value and therefore economic growth.

3. Methodology

It will be used two methodologies, the first a descriptive study and secondly logic regression analysis.

There are empirical evidences that suggest that cities are attract innovative business location due to the capacity to gather different typology of stakeholder (Engels *et al.*, 2018), the effect of competition between business in the same location (Momaya, 2016), the nature and consumers amenities which are more abundant in urban areas (Min Zhang *et al.*, 2020).

Therefore, it has been hypothesized:

H1: Cities, industrial districts and science and technology parks are the main location unit of innovative entrepreneurship in Spain

Attending, on one hand, to previous studies that demonstrate that government policies are able to facilitate entrepreneurship activity it was formulated next hypothesis:

H2: Entrepreneurship in cities depends on regional GDP expenditure in R&D

H3: Entrepreneurship in industrial areas depends on regional GDP expenditure in R&D

H4: Entrepreneurship in rural areas depends on regional GDP expenditure in R&D

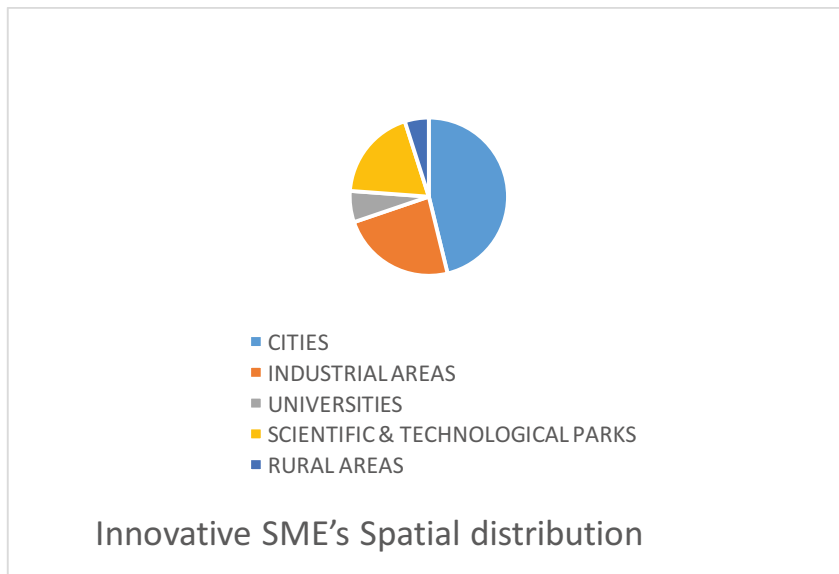
H5: Entrepreneurship in scientific and technological parks depends on regional GDP expenditure in R&D

H6: Entrepreneurship in universities depends on regional GDP expenditure in R&D.

4. Findings

Differentiating between five types of locations (scientific and technological parks, urban areas, industrial districts rural areas and universities). The idea is to elaborate a database with all Spanish innovative enterprises granted with the SME Instrument and search their locations and y classify them in different groups. H1 will be tested through a descriptive study to describe the current situation, to know more about the spatial pattern of innovative entrepreneurship.

Figure 2. Entrepreneurship spatial distribution. Source: Own elaboration.



Logit regressions are used to test the research hypothesis. Regressions were made in two steps: a first step that only considers control

variables (models 1, 3, 5, 7 & 9) and a second step that include the control variables and the dependent variable (models 2, 4, 6, 8 & 10).

- Dependent variable, regional expenditures in R&D, changes every two models in function of the concrete entrepreneurship location of the analysis. In model 1 and 2 will be cities, models 3 and 4 industrial areas, models 5 and 6 rural areas, models 7 and 8 scientific and technological parks and in models 9 and 10 universities. Dependent variable will be codified as dual-variable
- Independent variable: regional expenditures in R&D. It remains the same (it is used in models 2, 4, 6, 8 & 10).

Control variables will remain the same in all models and are classified in internal data from the SMEs and external:

- SMEs internal variables:
 - Total assets 2013. The concept “assets” makes reference to resources that SMEs owns.
 - Return to capital employed (ROCE) (%) 2013, is the financial ratio that measures SMEs efficiency employing its capital.
 - Return on equity (ROE) (%) 2013, is the financial ratio that measures the ability of SMEs to generate profits from its shareholders investment in the enterprise.
 - Profit margin (%) 2013 is a SME’s ratio, profit minus cost divided by profits.
- External variable:
 - Year that SMEs have being granted by the SME instrument.

MODEL 1 – MODEL 2

In model 1 there is not any significant relation between variables, but in model 2 that includes the independent variable “Total regional GDP expenditures in R&D Thousands constant 2000” it can be seen a significant relation between “entrepreneurship in cities” and “Total regional GDP expenditures in R&D 2013 (Thousands constant 2000)”

MODEL 3 – MODEL 4

In model 3 there is not any significant relation between variables, but in model 4 that includes the independent variable “Total regional GDP expenditures in R&D thousands constant 2000” it can be seen a significant relation between the location of entrepreneurship in industrial areas and the total regional GDP expenditures in R&D 2013.

MODEL 5 – MODEL 6

In model 5 and 6 there is not any significant relation between variables. It can be said that there is not significant relation between entrepreneurship location in rural areas and the regional GDP expenditures in R&D.

MODEL 7 – MODEL 8

In model 7 there is not any significant relation between variables. In model 8 that includes the independent variable “Total regional GDP expenditures in R&D 2013 (thousands constant 2000), there is not significant relation. It can be said that there is not relation between entrepreneurship location in scientific and technological parks and regional GDP expenditures in R&D.

MODEL 9 –MODEL 10

In model 9 and 10 there are not significant relation between variables. There is not any significant relation between entrepreneurship location in universities and regional GDP expenditures in R&D.

5. Conclusions

The descriptive study about entrepreneurship location in the five units, showing a higher concentration in cities, but the accumulative proportion of entrepreneurship in industrial districts, scientific and technological parks, universities and rural areas are more than the 50% in the

country, indicating the importance in generating innovative business of all of them.

By analyzing the entrepreneurship location in five different units, it was found that there is a positive effect between the public regional expenditure in R&D and entrepreneurship in cities and industrial districts, but this relation do not appear in other locations where there is less entrepreneurship activity as rural areas, universities and scientific and technologic parks.

Entrepreneurs and policy makers should be aware of this information for their location decision and policy makers for personalize their policies.

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THE SOCIO-EMOTIONAL INFLUENCE ON ENTREPRENEURIAL CAPABILITIES. THE HISTORY OF A MEDIUM-SIZED FAMILY BUSINESS

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KEYWORDS: Family Business, Socio-Emotional Wealth and Entrepreneurial Skills.

I. Objectives

Understanding how the socio-emotional factor influences the entrepreneurial capabilities of a first-generation Mexican medium-sized family business located in the textile sector of the state of Puebla, based on the perception of the founding or strategic members of SOTEXAM.

I.1. *Specific Objectives*

1. Understand how the founding or strategic members of SOTEXAM perceive the socio-emotional (affective) influence on the capacities and routines delimited by the managerial (administrative) and functional (technological) area
2. Understand what capabilities of the managerial (administrative) and functional (technological) area have allowed the development and survival of the textile company according to the perception of the founding or strategic members of SOTEXAM

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2. Theoretical Background

The central point in the strategic decision-making of the family business is to preserve the socio-emotional heritage (Berrone *et al.*, 2010). However, the non-financial aspects of the firm include affective needs, such as identity, the ability to exert influence and perpetuate the family dynasty (Gómez *et al.*, 2007)

Socio-emotional wealth has multiple dimensions such as the priority to maintain control of ownership and management, cede the company to the next generation, preserve the reputation of the family, maintain the identity of the company, among others (Berrone, Cruz, and Gómez-Mejía 2012). This theory allows to

incorporate the overlap between company and family, considering as a distinctive characteristic of the family business that explains its priorities in making strategic decisions (Habbershon and Williams 1999; Mustakallio, Autio, and Zahra 2002).

The preservation of socio-emotional wealth does not represent being inefficient from an economic point of view. Studies of family businesses indicate that they are more profitable than non-family businesses. However, the lack of economic efficiency can lead the company to bankruptcy and consequently to the total loss of socio-emotional assets, even if all the economic value is not lost.

The study of family businesses from different theoretical perspectives has had important findings, the study of emotions and their implications remains a little addressed dimension; although their results are contradictory, reductionist and fragmented theoretical interpretations (Gómez *et al.*, 2011). Studies of emotions, development and succession of the family business have increased, but there is no exhaustive theoretical model that is shared as a consensus between the different perspectives.

3. Case Study

Studies implicitly or explicitly have a research design (Yin 1994) through which collected data (and conclusions obtained) are linked to

initial research questions. Yin and Lee show the main components of the case study, which are presented below:

Research questions: As in experimental research, the case study tends to focus on how and why phenomena occur.

Theoretical propositions: as in quantitative research in general, and experiments in particular, theory is the guide in the design of the study and its execution. In a deductive way, it should clarify the specific research questions, the variables and interactive assessment, and the nature of the analysis.

- Unit of analysis.
- A logical linking of data with theoretical propositions.
- The criterion for evaluating these proposals.

Unlike most methods, in which the researchers' hypothesis and procedures are determined *a priori*, the design of research in case studies remains flexible, both before and during the process. According to

Taylor and Bogdan (1992) "Until we enter the field, we do not know what questions to ask or how to ask them" (p.32), staying out can cause the anticipated image we have of the phenomenon to be studied to be false. In this research, the pilot phase will be a crucial element in redefining research questions, theoretical propositions and case selection; however, a schedule of activities has been developed to delimit the study time and the definition of priority activities.

The bibliometric search consisted of the specialized literature in the study of family businesses, with the focus on socio–emotional wealth and dynamic capabilities, in this sense, a database with 547 investigations was concentrated, which were analyzed with the Vosviewer software. In this sense, three bibliometric maps were obtained that helped to locate the main authors who have worked on socio–emotional wealth, as well as the main countries, being the developed countries that have developed this topic the most. Finally, the key words that accompany social–emotional wealth were found.

4. Description of the case study

The company SOTEXAM has an antiquity of eleven years, is dedicated to the commercialization of textile machinery, provides technical support of textile machinery and clothing manufacturing.

On the other hand, the company Sotexam has 43 employees, 40 in maquila and an accountant, a supervisor and a guard, only in the Amalucan winery, however, the Libertad winery has 37 employees, between technical and administrative. Both wineries have a total of 80 employees. Although now, there is no information on the other remaining wineries. However, Sotexam is a medium-sized company according to Table 1.

Table 1. Stratification of MSMEs by size and economic sector. SOURCE: Diario Oficial de la Federación 2019.

Company Size	Number of people employed by economic sector		
	Manufactures	Commerce	Services
Micro	1–10	1–10	1–10
Small	11–50	11–30	11–50
Median	51–250	31–100	51–100

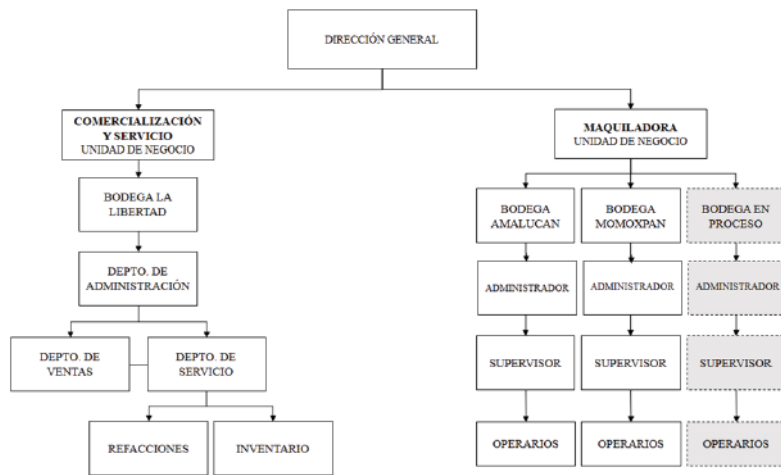
4.1. Business Units

The company SOTEXAM two business units located in the municipality of Puebla, State of Puebla, Mexico. It is worth mentioning that three business units are rented, and one is family owned, built during 2020. Below is the address of the rented wineries, except for the family-owned winery, for the time being, as the owners of the family business have chosen to maintain the anonymity of the location of the latter winery.

- Bodega de Xoxtla.
- Bodega la Libertad: Calle 2 sur 310, Libertad, 72130 Puebla, Pue.
- Bodega de Momoxpan: Blvd. Forjadores de Puebla 103, Santiago Momoxpan, Bello Horizonte, 72170 Puebla, Pue.

On the other hand, the general management oversees the four business units, the warehouse of La Libertad is dedicated to the commercialization and technical service of textile machines, in this place are the departments of administration, sales, service (inventory and spare parts). While the business units dedicated to the manufacture of clothing have a basic and vertical structure, where there is an administrator, a supervisor and the operators, see figure 2.

Figure 2. Organization chart of SOTEXAM. SOURCE: Own elaboration.



5. Conclusions

Family businesses are a central player in the economic development of the country and the world. The family business should not be run as if it were a joint venture. Preserving socio–emotional wealth is not synonymous with giving up being efficient from an economic point of view. The lack of economic efficiency can lead the company to bankruptcy and that means the total loss of socio–emotional wealth.

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DIGITAL TRANSFORMATION IN THE FMCG INDUSTRY. PAST TRENDS, FUTURE DIRECTIONS AND PRACTICAL CONSIDERATIONS

ATTILA LOIBL¹

KEYWORDS: Digital Transformation, Industry 4.0, Value Chain, Lean Practices, Supply Chain Collaboration.

I. Objectives

The focus of the research is the value chain transformation of fast-moving consumer goods (FMCG) companies. FMCG companies play important role in economies and everyday lives, however research in relation to the digital transformation initiatives of such firms is scarce. The objective of the research is to assess trends in academic research focusing on the digital transformation of FMCG value chains. Findings were then contrasted to more recent practical examples from grey literature. The key contribution of the research is to provide practical recommendations for practitioners in the FMCG sector on how to pursue initiatives that digitally transform value chains in the industry, to find the right balance between financial efficiency, supply chain resiliency and ability to meet varied customer demand.

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2. Theoretical Background

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The need to create transparent and sustainable supply chains driven by consumer demand and supported by technological advances was already recognized as important research area from the early 2000's. The importance of integration among supply chain participants and enhancing collaboration was raised multiple researchers (Tahmassebi T., 1988; Senauer *et al.*, 2011). Predictions showed that technologies such as radio frequency identification (RFID) will result in more resilient, demand-driven and efficient supply chains created in the FMCG sector (Lee *et al.*, 2004; Doukidis *et al.*, 2005; Bardaki *et al.*, 2007). Later, redistributed manufacturing was expected to have further transformational impact on FMCG business models (Zaki *et al.*, 2017; Turner *et al.*, 2019; Kayikci Y., 2018).

The issues experienced with supply chains that followed the COVID-19 outbreak were especially pronounced in the case of FMCG companies. These challenges indicate that despite the earlier focus in academia on related activities, these initiatives were far from complete in practice. This clearly shows the need for performing in-depth research of FMCG companies' value chain transformation initiatives.

3. Methodology

The research was made using the systematic literature review methodology, as per the process laid out in Webster, 2002 with the below steps followed:

1. *Define focus of the research*, which was the analysis of the evolution of value chain concepts in the FMCG sector driven by digital transformation initiatives.

2. *Review the list of articles* and create a shortlist of the publications included in the final detailed analysis.
3. *Create a concept map* based on the key areas of analysis and findings in the list of articles subject to detailed review.
4. *Analyze and synthesize* key findings, relationships, and patterns to understand how the knowledge base in this field evolved and to identify any potential gaps in literature and potential areas of future research.
5. *Conclude on the findings* and identify future research directions.

The search process was focused first on finding white literature, i.e., scientific articles from a reliable source. For this purpose, list of articles was created by using the Scopus database. Academic findings were contrasted with grey literature focused on similar topics, and conclusions were drawn about practical implications and potential areas of future research.

4. Findings

Our results show that the need to create transparent and sustainable supply chains driven by consumer demand and how technology can support such initiatives was already recognized as important research area from the early 2000's. Contrasting this to current challenges that companies are facing, the work is far from complete and the FMCG sector has further scope to improve in creating more digital value chains. Whilst the efficient operation of supply chains will continue to be in focus, practical examples indicate that there is likely to be a tradeoff between some of the previously popular lean principles and resiliency of value chains, if disruptions are to be managed more effectively by FMCG firms. Technology is expected to play an important role in such transformations and to improve firms' ability in the sector to respond to increasing variety in consumer demand. In addition, sustainability matters are expected to raise to a higher rank within the sector's priorities, and the resulting transition risks are to be carefully managed if FMCG firms want to ensure their ongoing success and longevity.

5. Conclusions

The research analyzed the evolution of how value chain considerations evolved in the academia due to technology advancements in the FMCG industry. The implementation of lean principles and the ever increasing variation in consumer demand generated the need for stronger cooperation between companies, with technology playing a significant role in the process. This also resulted in a change in performance focus from businesses, with traditional financial indicators losing importance and other performance dimensions (such as supply chain flexibility, or consumer experience) raising higher in ranks. On the other hand, operational considerations in FMCG value chains created bottlenecks that resulted in significant disruptions for businesses with large exposure to foreign supply sources.

As potential future areas of research, new value chain practices evolving across FMCG firms could be analyzed to assess how previously dominant lean principles continue to exist, but with a higher focus placed on the impact of potential disruptions. Also, an area of future research could be the assessment of changes in performance indicators through practical examples and case studies. Finally, one could also investigate what are the prevailing technologies driving FMCG firms' digital transformation initiatives and if there are any overlooked solutions that could support businesses in the industry to unlock further value and growth.

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LEAN STARTUP PRINCIPLES TO ALIGN BUSINESS INNOVATIONS WITH CUSTOMER NEEDS DURING AND AFTER COVID-19 PANDEMIC

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KEYWORDS: Lean Startup, Innovation, Market Fit, Products and Services Development, COVID-19.

1. Objectives

The objective of this work is to analyze how the application of the Lean Startup principles (Ries, 2011) can drive established organizations and startups to align innovation with customer needs in the turbulent environment caused by the COVID-19 pandemic, which has led to rapid social, consumer, economic and labor changes.

In this context, organizations need to have an efficient process to identify the problems that consumers want to solve and what solutions to build, both from a technological and business strategy perspective, with the lowest risks and costs, to remain competitive, productive and sustainable in the long term.

Thus, through a Systematic Literature Review, the main benefits of the application of Lean Startup in organizations, and the key aspects for its successful adoption are analyzed. The Research Questions (RQ) of this work are:

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- RQ 1. Which are the main benefits of adopting the Lean Startup principles?
- RQ 2. Which are the key aspects of Lean Startup adoption that any organization should pay attention for a successful implementation?

2. Theoretical Background

The COVID-19 pandemic has had a great impact on most industries, forcing them to adapt quickly to new consumer habits and regulations based on the epidemiological situation, the acceleration in adoption of some technologies, and social, regulatory, and labor relations changes in a short time. For example, new concepts such as the Low Touch Economy (De Mey and De Ridder, 2021) have emerged, characterized by low-touch interactions, health and safety measures, new human behaviors, and permanent changes in the industry, that will define our lives for a while, and will influence the future environment and the transition to a 'New Normal'.

On the other hand, the development of the digital economy has grown dramatically, with digital transformation becoming a fundamental strategy for many organizations facing a collapse in demand (Guo *et al.*, 2021) to avoid the closure of many businesses.

In response to unprecedented changes, in order to overcome the difficulties and constant changes from demand, organizations must develop innovative business models, create entirely new products and services, define new profiles of customers, or redefine 'business as usual' in order to stay in business. At this point the application of Lean Startup principles can help organizations to find the market fit between the changing customer needs, and the solutions that organizations offer.

2.1. *The Lean Startup Approach*

The Lean Startup is a methodology oriented towards the discovery and efficient use of resources, that develops an iterative and hypothesis-based approach, in which potential customers and users are involved from the

beginning, with minimal initial planning, and which allows the transition from opinion-based decisions to decisions based on data, while enabling an incrementally adaptable design of products and services.

The Lean Startup concept was introduced by Eric Ries (2011) and is based on the principles of Lean Manufacturing of avoiding waste and optimizing the use of resources (Womack *et al.*, 2007), the Customer Development to search and execute new business models (Blank, 2005) and practices from the Agile Software Development (Beck *et al.*, 2001) for the application of the scientific method to solve the business development problem.

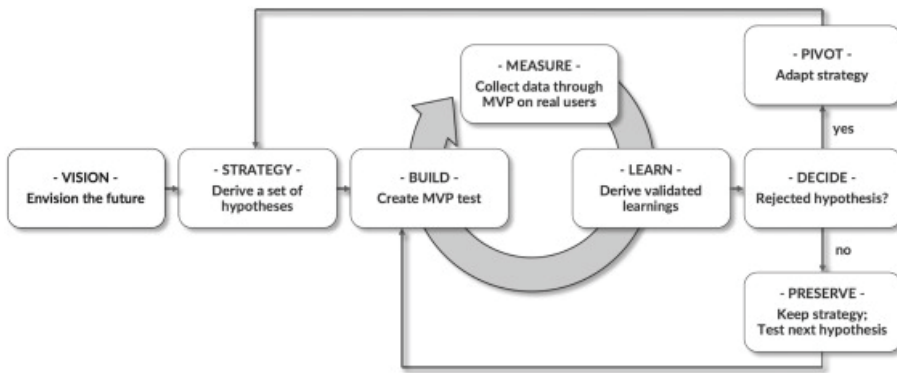


Figure 1. The Lean Startup Approach. SOURCE: Bohn and Kundisch, 2020.

The Lean Startup is based on the Build–Measure–Learn Loop (Figure 1), in which small learning cycles are carried out using a series of Minimum Viable Products (MVPs), which design is based on the assumptions about what the market is willing to accept, based on the vision of the organization. Collecting as many data as possible from real users, these MVP are incrementally improved, pivoting if necessary, until reaching a version of the product that the market is willing to accept.

In this way, the Lean Startup offers a set of practices for learn and validate the hypotheses, as well as a framework for experimentation as a means of resolving business uncertainty and minimizing the risks of failure of new initiatives.

This approach is the opposite of classical products and services development processes, in which after a meticulous planning the product

is developed in a cascade linear model ‘behind closed doors’, without contact with customers, and finally launched on the market, evaluating the response of potential customers at that time. This approach can be used for stable and controlled environments, but not in the COVID-19 situation, implying high risks in the use of scarce resources for an uncertain result.

3. Methodology

A Systematic Literature Review (SLR) was carried out during this work. To ensure the reliability and validity of the findings, the stages suggested by Tranfield *et al.* (2003) were adopted: planning, execution, and presentation of results.

Web of Science, ScienceDirect and Scopus databases were used for their relevance within the fields of business and management, their broad scope and quality. Although the choice of three databases created an overlap in results, it served as validation to ensure that relevant articles were included within the search criteria. Moreover, this search was supplemented with Google Scholar results.

Terms used during the SLR were: “lean”, “startup”, “minimum viable product”, “customer development” and “pivot”. The SLR included articles written in English published in academic journals excluding book chapters, reviews and editorial material, conference proceedings, as well as gray literature. Table 1 shows the results of each search strategy in databases.

Table 2. Results of each search strategy in databases. SOURCE: Authors.

Database	Examples of search strategies	Results
Web of Science	(TS=(lean startup)) OR TI=(lean startup)	152
ScienceDirect	TITLE=ABS=KEY (lean AND startup) AND (LIMIT=TO (DOC=TYPE, “ar”)) AND (LIMIT=TO (LANGUAGE, “English”))	48
Scopus	Title, abstract, keywords (lean AND startup)	131
Google Scholar	allintitle lean startup [*]	282

[*] In Google Scholar the search is less restrictive, as it does not allow distinguishing between types of documents, then the results include, in addition to scientific articles, contributions to conferences, books and other gray literature.

Results were exported to an Excel spreadsheet, including related metadata (such as article title, abstract, author(s), journal of publication, year, keywords, etc.). After eliminating duplicate search results, all articles were downloaded in .pdf format for consultation. Titles, keywords, and abstracts were reviewed to identify those with information related to benefits and key aspects for the adoption of the Lean Startup, which were evaluated in detail to be considered in this work. Finally, 45 articles were analyzed.

4. Findings

The principal outcomes of this research are the main benefits of adopting the Lean Startup principles (RQ₁), considering the required efficient use of resources and a proper market fit of new products and services launched in an environment influenced by the COVID-19 pandemic, and the key aspects of Lean Startup adoption for its successful implementation in organizations (RQ₂).

The most cited benefits in the studies are the reduction of development and commercialization times; the improvement of innovation management, reducing risks, uncertainty, and the chance of working intensively on unpromising ideas; the alignment of the business ideas with customer needs through their participation in all stages of development; the validation of the components of the business model; and the efficient use of resources. In sum, improving innovation processes and business performance.

On the other hand, key aspects to its successful implementation are the commitment of top management team (TMT) for the change; the creation of opportunity spaces aligned with the strategy; the appoint of a champion or protector of the initiative in a senior position, not necessarily from TMT, with authority to act and make decisions; the identification of the right profiles, as interdisciplinary teams are required to effectively apply the Lean Startup framework; a corporate training on Lean Startup; remove (a bit) the bureaucracy; enhance the employee motivation; scaling the initiatives from small teams, and evaluating the progress with an innovation accounting.

5. Conclusions

The adoption of Lean Startup principles in organizations improves the innovation process and business performance, facing the challenges related to changing customer needs that COVID-19 pandemic has caused. Additionally, in this work the key aspects for a successful implementation in organizations are described.

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IT IS NOT GOLD ALL THAT GLITTERS: ANALYSING THE WLB OF FAMILY AND NONFAMILY FIRMS

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KEYWORDS: Work–Life Balance, Family Firm, Satisfaction.

1. Objectives

WLB is particularly relevant in the case of family firms because in this type of businesses the two social roles, the employee/manager role and the family role, mingle and the limit between family and business is commonly blurred (Danes & Olson, 2003). However, despite the fact that the family business is a unique framework for the study of the work and personal life balance due to the high integration of work and family roles ((R. Helmle, C. Botero, & R. Seibold, 2014); (Smyrnios *et al.*, 2003), the number of studies carried out in this context is still very scarce (Rothausen, 2009); (Stafford & Tews, 2009).

Taking into account the importance of the adequate work–life balance in all context, but in particular in the family firm context, the relevance of its implications for family firm outcomes and the gap that exists in the literature in this regard, our objective is focused on analyzing WLB in family businesses and to compare results with their counterpart nonfamily business. Likewise, we do not want to limit ourselves to the analysis of family members but to study the reconciliation relative to non–family employees.

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2. Theoretical Background

Clark, (2000) developed the Work–family Border Theory which suggests that individuals are “border-crossers who make daily transitions between these two settings (work and family domains that are seen as separate entities), often tailoring their focus, their goals, and their interpersonal style to fit the unique demands of each”. But this theory is particularly complex in family firms because family members working in family business do not easily differentiate between work and family life (Desrochers *et al.*, 2005) as it is in this type of businesses where the work and family domains are intrinsically intertwined (Ashforth, Kreiner, & Fugate, 2000). In fact there is a great consensus in the literature with respect to the blurred boundaries that exist between the family and the family firm ((Danes & Olson, 2003; Labaki, Michael–Tsabari, & Zachary, 2013) because family firms represent one of the most highly integrated situations involving work and family.

Additionally, SMEs typically have an organic structure with non-clearly defined tasks and whose informal structure allows a greater flexibility when the needs arise. Some authors (Guest, 2002) maintain that family business members, have more control than the average worker over their borders, and they have more choice in how they choose to balance their work and family lives, which would favour the satisfaction of WLB. This is supported by other authors such as Ashforth *et al.* (2000) who noted that the flexibility of owning your own business may allow family managers, especially women, the ability to effectively balance work and family by attending to family matters during work hour.

Work–life balance, understood as “the extent to which an individual’s effectiveness and satisfaction in work and family roles are compatible with the individual’s life role priorities at a given point in time” (Greenhaus and Allen, 2010) is a term highly related to the individual satisfaction. As (Eddleston & Powell, 2012) point out, for some individuals dedicating approximately equal time devoted to work and family roles may represent a high level of work–family balance whereas for others the balance may be different. In fact, the balance between both roles is very subjective as it depends on each other preferences (Greenhaus and Allen, 2010).

If family firms tend to preserve the socio-emotional well-being of family members, they should also worry about the WLB. With regard to non-family employees, we expect also a greater understanding of the WLB needs (Labelle, Hafsi, Francoeur, & Ben Amar, 2015).

It is of special relevance in the sustainability of the family business since it results in greater employee satisfaction. In addition, its study has intensified in recent years, motivated by social changes such as the greater incorporation of women into the labor market, dual careers couples, single-parent families, the greater involvement of men in the family environment or the pandemic.

H1: FM of FF present a higher satisfaction with WLB than NFM of FF and that NFM of NFF.

H2: NFM of FF present a higher satisfaction with WLB than NFM of NFF.

3. Methodology

We focused on a set of firms in the manufacturing sector in Spain. Firstly we extract data from the set of active firms taken from the “SABI” (Iberian Balance-Sheet Analysis System) database (Bureau van Dijk, 2015).

The firms in our database were contacted by phone to ensure a high level of response. Answers were received from 410 firms. Our questionnaire included other questions about the firm (size, age...) and work-life balance using scales previously tested in the literature. In the case of family firms, we aimed at a family manager. These key respondents commonly have a wide picture of the whole organization ((Carr, Cole, Ring, & Blettner, 2011) Carr *et al.*, 2011; Klein *et al.*, 2005), and Herrero (Herrero, 2018) has demonstrated that their answers agree with those of other actors in the firm.

4. Findings

The WLB satisfaction of family members does depend on firm size: the larger the firm, the lower the WLB satisfaction. If the firm is family

managed the WLB satisfaction is higher. The WLB satisfaction of non-family members of family firms does also depend on firm size: the larger the firm, the lower the WLB satisfaction. The WLB satisfaction of members of nonfamily firms do not depend on firm size, but older firms seem to provide higher WLB satisfaction to members of nonfamily firms.

5. Conclusions

Even if in family firms trying to preserve family armony may worry about WLB, it is also possible to think that the strong company–family interaction leads these types of companies to not have a boundary between the company system and the family system, or that it is very blurred, coming to see the company as one extension of one's own family ((Brannon, Wiklund, & Haynie, 2013), which could lead to an imbalance in the business–family balance among family members. Furthermore, while SMEs commonly present informal and organic structures which allow a high flexibility when needed, they also lead family members to pay extra efforts when the situation require so. Consequently, family members tend to enjoy a great flexibility, but the mixture family and business may also lead to suffocating extra efforts which can diminish the WLB satisfaction and may be the reason for the lack of support of our hypothesis 1.

With regard to the WLB of nonfamily members, even if we presented many arguments that lead us to think that family firms tend to worry about their employees and to establish long-term and mutually satisfying relations with them, there may be other reasons for which nonfamily members may not feel satisfied with their WLB. On the other hand, family business owners could be used to the interference of work in their personal life (Moshavi & Koch, 2005), which could pose a problem to understand the personal needs of their workers (Rothausen, 2009). Furthermore, strong family–business identification frequently leads to a high level of sacrifice on the part of family members. This can lead to a mismatch in the balance, with greater weight of the company, expecting from non-family employees a similar sacrifice. While

family members may be able to prioritize the needs of the family business over personal needs, and still be satisfied with the mismatch, this may not be the case for non-family employees. On the other hand, it can also be argued that when socio-emotional capital is at very high levels, non-family members are considered “outsiders” and, therefore, this personal-work life imbalance does not extend to non-family members. All this may lead to the result that the relationship between family firms and the nonfamily members business-personal life balance is not as obvious as it might seem. In fact, some previous studies present evidence that family businesses offer reconciliation measures to a lesser extent than others (Moshavi & Koch, 2005). Additionally, the usual absence of formalized human resources practices (Basco and Rodríguez, 2009) may facilitate some measures when needed but it does not help to establish formal measures of WLB.

Finally, we cannot oversee the potential conflicts that may be present in some family firms. In these cases, family members may present lower satisfaction with WLB due to the fact that they will have more difficulty to “escape” from problems than if similar conflicts occurred in a non-family company.

Altogether, we can conclude that the family firm present both, advantages as well as disadvantages, compared to non-family firms in terms of work-life balance satisfaction (Porter, 1998; Schillaci and Longo, 2010; Baccarani, 2011; Pilotti, 2011; Golinelli, 2012b; Barile *et al.*, 2013; Cafferata, 2015; Borgonovi, 2017).

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THE INTERNATIONAL PROFILE OF THE ENTREPRENEURIAL CULTURE: A CASE OF STUDY BETWEEN CHINESE AND SPANISH STUDENTS

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KEYWORDS: Internationalization, Entrepreneurial Culture, Comparative Study.

1. Objectives

The entrepreneurial culture has captured the attention of academic researchers and policymakers with a much stronger intensity, especially during the last years. This is mainly due to the crucial importance that the entrepreneurship culture and the individual initiative have in the actual economic environment as a generator of new ideas and transforming them into new businesses (Turker & Selcuk, 2009).

From an international point of view, with the continuous globalization, the cultural integration is the only strategy that different countries such as China and Spain have, to get closer to each other and reduce their cultural differences, being this relationship multi-lateral and multi-directional. The same consequences will apply to the entrepreneurial culture as it is directly linked to the general culture composition.

Even being the normal age to start a new business between 25 and 44 years old, as indicated in different studies, also, it is very important to concentrate and study the below ages as those represent the very first step through the individual entrepreneurial initiative. At moment, little is known regarding this issue (Turker & Selcuk, 2009).

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Aligned with the above comments, this investigation line has proposed the following objectives:

- Understand the individual entrepreneurial initiative and intention in China and Spain.
- Understand the inputs (internals and externals) that have an impact on the individual entrepreneurial initiative in China and Spain.
- Through a comparative descriptive study understand the similarities and the differences between China and Spain and the role of internationalization.
- Propose action points and future investigation lines.

2. Theoretical Background

Seeding an entrepreneurial culture represent a great strategy for the European countries to leave behind the economic recension that part of the countries are experiencing and, on the other hand, reaching medium to high incomes for many Asian countries. At the same time, the continued economic progress and the consolidation of the global multilateral cooperation, being the private companies one of the principal drives of the whole process, has placed the entrepreneurial spirit under a special focus in recent years.

Regarding China, the “Belt, and Road Initiative” as a transcontinental longterm policy and investment program which aims at infrastructure development and acceleration of the economic integration of countries along the route of the historic Silk Road, has further promoted the interconnection within and abroad the region, increasing significantly the exportations and the foreign trade. It is well known that international cooperation, regarding the chain value, represents a great strategy to reduce or even eliminate the fragmentary forces of the globalization that we are currently facing.

Of course, economic globalization will be accompanied by the multi-lateral cultural closeness as well due to the general cultural integration. In this process, the role of business is essential, even more in economic and financial fields (Zhang, 2004; Lu *et al.*, 2021; Peng y

Lin, 2021). Meaning that the role of the individual entrepreneurial initiative and general entrepreneurial culture is essential, as are the inputs and the linkage that impact it Lu *et al.*, 2021).

3. Methodology

To fully capture all the cultural insides that impact the entrepreneurial culture of the student part of the research a questionnaire has been prepared, which is composed of six different categories such as:

1. Comprehension of the basic information.
2. Generation of a database source of the entrepreneurial culture.
3. Educational support.
4. Institutional support.
5. The environment supports.
6. Self-Confidence and personal characteristics.

The questionnaire was sent to 279 profiles of Master's, Bachelor's, and Ph.D. students of different nationalities mainly Spanish and Chinese.

4. Findings

Below, as a summary form, are indicate the main findings of the descriptive research conducted in Toledo:

- The national/domestic entrepreneurial culture represents a strong input for the individual entrepreneurial initiative. The entrepreneurial initiative in China is stronger than the Spanish one.
- The "Learning Process" is crucial for the development of the individual entrepreneurial culture. Students with economical learning background are more likely to start a new business.
- The internship programs further consolidate the individual entrepreneurial culture.

- A direct linkage between the learning level and the entrepreneurial education offered by the universities has been demonstrated.
- A direct linkage between the family entrepreneurial experience and the individual entrepreneurial initiative has been demonstrated. The students having a family member running a business are significantly more likely to start a new business.

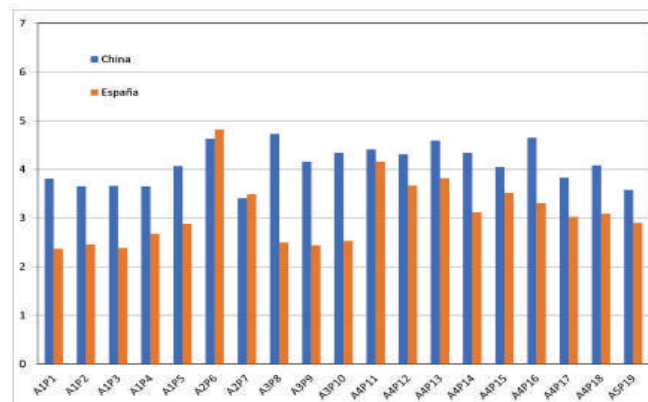
5. Conclusions

As may be noticed in the chart below, the entrepreneurial willingness of the Spanish students is way below the Chinese students' average. On the other hand, the Chinese students have shown much more interest in running a new business in the short to medium term.

From questions 1 to 5 we may notice that the Chinese Educational Support is much higher than the Spanish equivalent. However, answering questions number 6 and 7 the Spanish students are saying that family and friends offer strong support in case they would like to start a new business. This kind of support is lower for Chinese students.

Regarding the rest of the questions, the Chinese student's answers are higher than the Spanish ones, meaning that, at this moment, they are more self-confident to start a new business and also that the Chinese environment is considered significantly helpful to them.

Figure 1. Questionnaire results. SOURCE: Own Elaboration.



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ARE EFFECTIVE THE SUBSIDIES POLICIES FOR SELF-EMPLOYMENT?

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KEYWORDS: Self-Employment, Flat-Rate, Survival, Evaluation, Matching.

1. Objectives

Offering unemployed employees the possibility of minimizing the cost of social security contributions, obtaining subsidies or bonuses at the beginning of creating their work activity, appears as an attractive option in the search for solutions to the problem of unemployment.

Depending on the year, Andalusia, in Spain, is between six and nine percentage points above the unemployment rate of the Spanish average.

The aim of this paper is to evaluate the effect on this region of the discounted flat rate for self-employed workers, whose objective is to encourage the creation of new self-employment initiatives by paying a reduced monthly contribution at the beginning of the activity.

This article focuses on determining whether this policy contributes on the business survival of the beneficiaries of these subsidies in Andalusia.

The work represents an advance in the understanding of start-up programs aimed at unemployed people and provides new information to propose improvements or redirection of funds intended to cover them.

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2. Theoretical Background

Self–employment support programmes are different depending on the country: profile of beneficiaries, the type and number of payments, or the training programs or discounts they propose. Some authors have developed various evaluations on survival analysis according to several EU countries policies for self–employment:

- Duhautois *et al.* (2012) compared the survival rates of companies created by unemployed, with and without subsidies in France. They found better results in the survival of subsidized organizations, but the economic results or employment creation showed no differences.
- Caliendo and Kritikos (2010) evaluated two different subsidy policies for unemployed who started–up a business. Both programs showed very high survival rates but there were no control group without subsidy to compare the results.
- Finally, two studies were conducted in Spain. Carrasco (1999) obtained higher probability of failure for start–ups created by unemployed. Cueto (2006) analysed a support program for self–employment, but she concluded it was not making any difference after six years. More recently, Cueto *et al.* (2017) found no influence of the discounted flat rate on survival of companies created by young people.

3. Methodology

This study requires the formation of two different groups to compare survival between beneficiaries and non beneficiaries of the discounted flat rate in Andalusia.

This is possible using the Continuous Working Life Sample (CWLS), a sample of data provided by the Spanish Ministry of Labour with anonymous and individual micro–data from a people appearing in the Social Security System.

We used the propensity score matching methodology to compare survival rates between the mentioned two groups of self-employees (with and without discounted flat rate) to avoid the distortion in the differences derived from other control variables (age, level of education, province, activity, etc.)

4. Findings

The total sample is made up of 2,247 self-employed divided into two groups: 1) 1,351 subsidised self-employed; 2) 896 individuals without the discounted flat rate. They all started up a business in Andalusia in the required period to obtain the subsidy, but the second group did not fulfill the rest of requirements (not being a self-employee the previous 5 years, among others).

The t-Student contrast of mean difference with respect to the variable survival time between the two groups studied (with and without flat rate) offers an average for the first group that reaches 890.72 days, being this higher than that of the segment of self-employed who did not enjoy the bonus (823.64 days). The t-student statistic showed a value of 3,040 with a p-value < 0.01, so the difference was statistically significant for a confidence level of 99%. Consequently, the self-employed who had enjoyed the flat rate achieved an average survival of more than two months higher (approximately 67 days).

However, this result can be distorted by the heterogeneity of both groups in terms of other independent covariates previously mentioned such as age, type of business, location, educational level, etc.

Therefore, propensity score matching methodology was applied to avoid this type of bias through the development of two homogeneous groups. Later on, the the average treatment effect on the treated (ATT) and the average treatment effect for the sample (ATE) were analyzed (table 1) for the whole period, and survival at 6 months, 1 year, 1 year and a half, 2 years, 3 years and 3 years and a half.

Table 1. ATT and ATE on overall and period survival.

		Coef.	AI Robust Std Error	z	P > z	[95% Conf. Interval]	
All period	ATT	55.97565	23.58834	2.37	0.018	9.743349	102.2079
	ATE	76.41644	26.17638	2.92	0.004	25.11169	127.7212
6 months	ATT	67.05597	28.16706	2.38	0.017	11.84955	122.2624
	ATE	78.20107	24.26520	3.22	0.001	30.64216	125.7600
12 months	ATT	71.13813	24.46838	2.91	0.004	23.18099	119.0953
	ATE	81.55356	21.04054	3.88	0.000	40.31487	122.7923
18 months	ATT	66.83940	20.34872	3.28	0.001	26.95665	106.7221
	ATE	72.99675	17.73728	4.12	0.000	38.23232	107.7612
24 months	ATT	58.06704	17.24893	3.37	0.001	24.25976	91.8743
	ATE	56.94906	15.10148	3.77	0.000	27.35069	85.5474
36 months	ATT	20.99414	8.70123	2.41	0.016	3.940038	38.0482
	ATE	22.63455	7.18556	3.15	0.002	8.551105	36.7180
42 months	ATT	-1.803475	4.45293	-0.41	0.685	-10.53105	6.9241
	ATE	-0.665446	4.12621	-0.16	0.872	-8.752663	7.4218

The results suggest that the flat rate has a positive influence on survival during the first three years of activity (with a peak in a favourable difference in survival rate for subsidized individuals in the first year). However, this difference decreases after 42 months when it becomes statistically not significant.

5. Conclusions

Since 2015 Spain is one of the European countries with higher expenditure in start-up incentives or subsidies. However, there is not an evaluative culture to analyze the results of the policies and programs to encourage self-employment, on the contrary to other countries such as Germany, France or Denmark.

This work has complemented the research line initiated by Cueto *et al.* (2017) as it evaluates the flat rate not only for young self-employees. The results have suggested the positive influence of this measure on survival rates and, although Caliendo (2016) proposes other dimensions to measure the success of a subsidy (job creation, incomes, etc.) in this case we consider the survival rate a good proxie to examine the influence of a discount in the fee that self-employees must pay to Social Security on their start-ups evolution.

The main conclusion of the article is that the flat rate has had a positive effect, both from the point of view of the final survival of the activity and from the perspective that contemplates that these incentives are also aimed at maintaining skills related to the work of people who do not find it, or have never had it, a fact that acquires special relevance in communities with high unemployment rates such as Andalusia in Spain. However, and given that the cost to Social Security has not been quantified economically, it would also be necessary to assess its possible counterparts, widely treated among others by Caliendo *et al.* (2015): deadweight losses, risk of adverse selection and problems of moral hazard.

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COVID-19 PANDEMIC AND THE MAIN ASPECTS OF AGRICULTURE

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KEYWORDS: Agriculture, Management, Digital, COVID-19, Technologies.

1. Objectives

As COVID-19 expanded around the world, it is important to consider its present and potential implications for the agricultural and food sector in terms of both for food supply and demand. Ensuring the continuity of global and national food supply chains will be critical to securing food supplies, preventing food crises in countries already facing food and nutrition insecurity, and reducing the overall negative impact of the COVID-19 pandemic on the global economy. Despite the fact that over the past two decades its share of total employment has fallen from 40.2% to 26.8% agriculture provides the livelihoods of more than one billion people worldwide. The global employment share declined, but the volume of agricultural production continued to grow. Along with urbanization, increasing per capita income and export opportunities the transformation of the food system has led to new jobs in the wider agri-food sector, which includes agriculture and related non-agricultural sectors such as processing, manufacturing, food marketing, transportation and cooking.

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Digital technology had long been part of agriculture before the COVID-19 pandemic, but the subsequent crisis gave extra impetus to the search for new uses for technology in food production. Challenges of digital agriculture are discussed as above, as well as the innovative approaches and changes that may result from digitalization in post-Soviet countries. Lack of digital skills, the absence of investment and poor communication in the development of small-scale subsistence farming remain some of the obstacles to be overcome in the crisis situation caused by the COVID-19 pandemic.

2. Theoretical Background

Agri-food sector jobs identified as important in the context of the COVID-19 crisis in many countries, measures taken to slow the pandemic have placed additional strain on the sector's ability to continue meeting demand, providing income and livelihoods, ensuring the safety and health of millions of agricultural workers and agricultural producers.

The negative impact of the crisis on the agricultural sector was less than on other sectors of the world economy, because the need for food has remained. However, in the agricultural sector as well, it is possible to face serious and even tragic consequences for individual sectors and for individual countries. The global economic crisis makes the vast majority of people and companies in the world poorer. The agro-industrial complex is oriented to basic needs, which have an advantage during the crisis period. Although the current devaluation is relatively mild the reaction of business is similar.

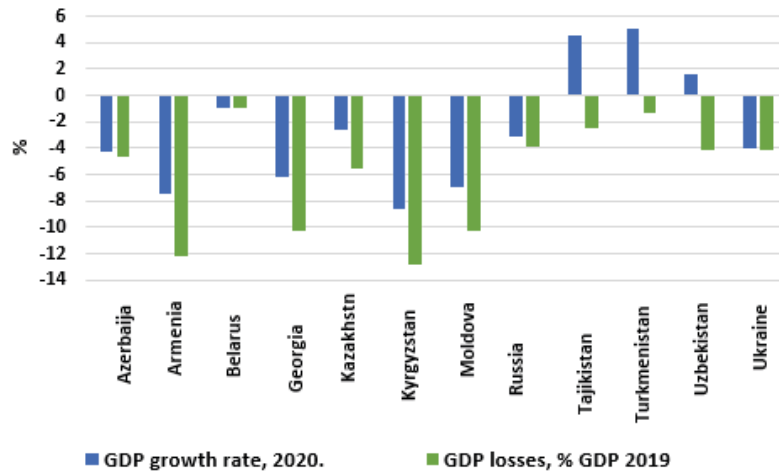
Devaluation leads to the growth of producers' currency costs, and their proportion in the cost of crop and livestock production fluctuates between 20–50%. The global market cease to be global because of border closures and restrictions on food trade.

3. Methodology

This research paper explains the main aspects of agricultural segment in accordance to COVID-19 pandemic situation. Agriculture is chosen as research area because its importance and significance, which provides a subsistence minimum for a human being. The research used both qualitative and quantitative data collection methods. Agricultural research methodology is oriented to understand and discover perspectives, experiences and used politics during COVID-19 pandemic situation. We gathered and used provided significant data analytics from FAO, International Trade Organization and World Health Organization.

4. Findings

Based on detailed analysis, global logistics, trade flows and production in FMCG food (branded, prepackaged and processed) have changed very significantly. Demand for products in restaurants, hotels and the catering industry fell sharply, so there was a rollback in value-added. Countries where significant demand was provided by tourism, the volume of imports of raw materials and processed products has fallen sharply. Accordingly, trade flows changed. The Post Soviet Union countries, such as Georgia, Armenia, Ukraine, and Belarus deal with COVID-19 pandemic situation peculiarly. Border closures have disrupted trade and tourism flows and prevented many seasonal workers, especially agricultural workers, from obtaining jobs abroad. At the same time, the decline in global commodity prices has directly affected, while the decline in remittance inflows has exacerbated the negative effects of what is happening in the region.

Table 1. GDP Countries' trend in 2019–2020. SOURCE: <https://www.wto.org/>.

The large losses of GDP are actual evidence of situation in aforementioned regions. Currency devaluations and inflation to the U.S. dollar were fixed with high vulnerabilities. Significant government support packages for population and production in most countries of the region played a tremendous role in creating an internal system of self-management. Foreign trade in the region prevented the rest of the countries from increasing exports, export structure (non-traded goods), focus on regional markets, industry structure (not large enough producers), government intervention, other reasons have grown in the background of a system of compelled pandemic.

The COVID-19 crisis has accelerated countries' use of digital technologies. In the agri-food sector, the application of digital tools ranging from e-commerce and mobile technologies to enhance market access to the use of artificial intelligence to improve pest control and crop genetics. Meanwhile as well as tools to optimize natural resource management and early warning systems for food security threats will facilitate a comprehensive approach that integrates economic, social and environmental main aspects. The level of technological development in The Post Soviet Union countries agricultural organizations is challenging to research.

5. Conclusions

The human factor is the main prerequisite for mankind existence. Although the labor market in the agri-food sector has been identified as important in the context of the COVID-19 pandemic. It is essential to learn lessons from the agricultural response to the pandemic situation with the goal of a “more sustainable growth-recovery.” Which means pre-planned anti-crisis measures.

The opportunities that arise from technological innovation and environmental sustainability should not be missed. The cause crisis in The Post Soviet Union countries has taken the measures to slow down the pandemic have put additional strain on the sector’s ability to sustain the main demand of population ensuring incomes and livelihoods and guaranteeing the safety and health of millions of agricultural workers and agricultural producers.

On the positive side, the pandemic has contributed to reconnecting urban dwellers with nature and opens up opportunities for more valued agritourism today. Connecting smart cities and smart villages is an option to consider in the near future to bridge the digital divide in rural areas.

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THE EVOLUTION OF ECUADOR'S BANANA SECTOR AND THE TRANSITION TO COMPETITIVENESS

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KEYWORDS: Company, Production, Export/import, Economic Competition.

1. Objectives

The objectives focus on analysing the historical development, importance and impact of the banana sector on the Ecuadorian economy.

2. Theoretical Background

Banana production began in the 1950s and evolved into one of the most stable sectors of the economy and a significant source of income and employment (Camino *et al.*, 2016).

Specialisation in banana production is understandable from the point of view of Smith (1794) in the Wealth of Nations and from the approach of Schumpeter (1997) in the Theory of Economic Development. To these must be added the contributions of Porter (1985) on competitive advantage and the theory of resources and capabilities by authors like Barney (1991); Rumelt (1991); y Wernerfelt (1984).

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An important research that details the evolution of banana cultivation in Ecuador, production yields by region and exports, can be found in the contribution of Gonzabay (2013) who describes the historical context of the take-off of banana production as the result of the exploitation of a commercial activity.

In a study conducted on the critical nodes in banana production units in Milagro, Ecuador, it is concluded that banana crop management faced a series of restrictions such as lack of administrative organisation, excess agrochemicals and low productivity (Centanaro & Nava, 2021).

3. Methodology

The methodological procedure was developed through a documentary literature review on the beginnings and evolution of banana production, which gave way to competitiveness.

As a complement to this research, statistical figures from secondary sources from studies already carried out by official public and private organisations were analysed.

4. Results

From 1950 onwards, the Ecuadorian economy was strengthened by the emergence of bananas in international trade and the signing of agreements with the United States to buy up agricultural surpluses (Acosta, 2006). Además, la aparición de la plaga conocida como “el mal de Panamá”, In addition, the appearance of the plague known as “Panama disease”, which affected Central American plantations, favourably boosted exports (Larrea *et al.*, 1987).

Several factors favoured the banana boom, such as low wages, government programmes to stimulate and encourage production, and the lack of diseases and pests in bananas in the beginning.

Other factors contributing to the development of banana activity were the opening of a large road network at the end of 1950 that linked

banana production to the construction and expansion of the ports of Guayaquil, Esmeraldas and Port Bolívar, as well as credit concessions and technical assistance to small and medium banana producers. The development of the banana industry was also accompanied by credit concessions and technical assistance to small and medium-sized banana producers.

Between 1965 and 1976, production went into crisis, due to the restriction in the demand in the United States, the stagnation in the European market in the western area and the introduction of the Cavendish variety, which produced greater comparative advantages due to its lower costs, in the world production. Ecuador was then producing the Gros Michell variety and Central America was beginning to recover its production, causing world overproduction.

Four phases in the development of the banana sector have been identified: the first from 1948–1965, with the start-up and expansion, which is the stage known as the banana boom. The second phase from 1965–1976, characterised by the crisis that affected Central America and the change in the cultivable variety. The third phase, between 1976–1985, consisted of the modernisation of production, accompanied by market stability, and the fourth phase, between 1985–1991, known as the second banana boom (Salvador, 2013).

The banana sector is made up of a market made up of very small, small, medium, large and very large producers, which is complemented by the banana export market, made up of multinational and large national companies that have their own farms and purchase bananas from small and medium producers without the capacity to export (Lucín & Álvaro, 2009).

Based on the information obtained from the Ministerio de Agricultura Ganadería Acuacultura y Pesca (2020) it is determined that the largest number of farms corresponds to very small landowners, with 42.8%, who have a sown area equivalent to 4.25%, as opposed to large and very large landowners who represent 15.55% and 4.28% respectively. The latter account for 73.52% of the cultivated hectares. It should be noted that banana production is concentrated in the coastal region with a contribution of 93.11%.

The number of banana exporting companies for the year 2017 amounted to 184. The following table shows the export volume in boxes, market share and the calculation of the Herfindahl–Hirschman concentration index (HHI). The result obtained was 3.697 which can be qualified as non-competitive or oligopolistic because the HHI is higher than 1.800 (Parkin & Loría, 2010).

Table 1. Cumulative exports. November 2017, boxes 18.14 kg.

N°	Companies	Volume	Market share (Cm)	Cm2
1	Ubesa	28.945.589	9,74%	94,80
2	Reybanpac	15.356.536	5,17%	26,68
3	Truisfruit	14.506.666	4,88%	23,81
4	Sabrostar Fruit	12.839.946	4,32%	18,65
5	Asoagribal	12.423.732	4,18%	17,46
6	Comersur	11.686.477	3,93%	15,45
7	Asisbane	9.910.407	3,33%	11,11
8	Ecuagreenprodex	8.636.251	2,91%	8,44
9	Tropical Fruit Export	7.754.284	2,61%	6,80
10	Otras	175.224.068	58,94%	3.474,12
	Total	297.283.956	100%	HHI = 3.697

Nota: Adapted from Bananotas, Año XIII, N° 128, bilingual edition (Asociación de Exportadores de Banano del Ecuador, 2018).

To understand the impact of banana activity, it is necessary to go back to the 1960s. Between 1964 and 1965, there were 3,000 agricultural properties destined for production in possession of 190,361 cultivated hectares. 46.87% of the properties were concentrated between 10–50 hectares. By 2018 this number had risen to 7479.

Regarding banana exports, in bulletin N° 42 of the Banco Central del Ecuador (2000) it can be seen that between 1980 and 1984, these exports decreased by –8.46%, affected by natural phenomena, pests and diseases typical of the banana agricultural activity. However, the years 2013, 2014 and 2017 are the years with the highest growth.

The importance of the banana sector lies in the fact that it is the second exportable good with the highest contribution to the economy

after oil and an important source of employment, generating between 2 and 2.5 million direct and indirect jobs (Instituto de Promoción de Exportaciones e Inversiones Pro Ecuador, 2016).

Despite its contribution, the natural phenomenon known as El Niño has caused flooding in the country, especially on the Ecuadorian coast, where most of the banana plantations are located.

Another problem facing the banana sector has to do with the official price per box of bananas. On the one hand, exporters are governed by the international price and demand, while banana producers make their sales on the basis of the support price set by the national government.

Another of the banana sector's difficulties is linked to access to credit. BanEcuador financed USD 783,822 in 2013, by the following year the figure decreased to USD 316,189, slowing down financing by -59.66% (BanEcuador, 2016).

The evolution and consolidation of the banana sector has taken place within the framework of the participation of internal and external factors that have affected its competitiveness in some way. This can be studied in depth using the following model:

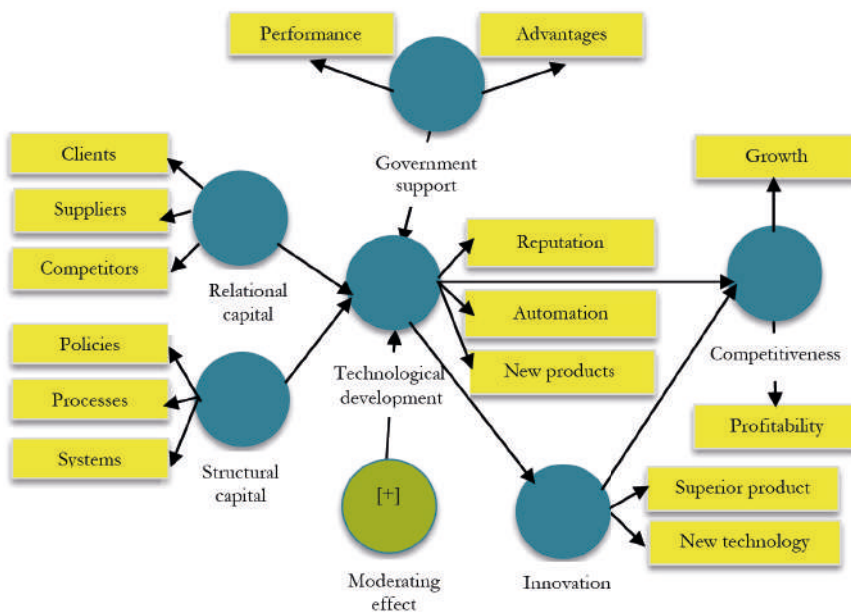


Figure 1. Theoretical model for the study of competitiveness.

The following hypotheses emerge from the above model:

- Hp1. Government support has had a positive impact on competitiveness by boosting technological development.
- Hp2. Relational and structural capital have been essential to achieve technological development.
- Hp3. Technological development has been instrumental in improving the competitiveness of the sector.
- Hp4. Technological development has favoured business innovation and competitiveness.
- Hp5. Innovation accompanied by new technologies and a superior product had a favourable impact on competitiveness.
- Hp6. Competitiveness has been reflected in significant growth in the banana sector.
- Hp7. The competitiveness of the banana sector has been evidenced by the achievement of adequate profitability indicators.

5. Conclusions

Ecuador has strengthened its participation in the international market, thanks to the incursion of bananas into the group of exportable agricultural goods, with a contribution of 2.69% of GDP in 2016.

Most of the agricultural land is in the hands of very small and small producers who are the ones who contribute most to production; there are also large and very large landowners who account for 73.52% of the area under banana cultivation.

The banana market is imperfect with oligopolistic characteristics that manifest themselves in a high concentration on the side of banana exporters.

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EXPLORING PLATFORM CAPITALISM: CONSIDERATIONS ON LABOUR AND EMPLOYMENT

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KEYWORDS: Labour, Platform Capitalism, Digital Economy.

1. Objectives

The objective of this paper is to explore the phenomenon of platform capitalism (Srnicek, 2017; Lobo, 2014), a term which is used to describe specific business models adopted by born-digital companies such as Facebook, Google, Amazon, Airbnb and Uber, to name a few. At the same time, the idea of platform capitalism also refers to the ambiguity arising in the field of sharing and cooperative practices, where the recurring narrative sees users acting in an altruistic way and promoting collaborative behaviours, while platforms act as intermediaries and end up appropriating all the economic value generated by such exchanges (Vecchi, 2017).

In fact, the latter point has led to relabeling many companies operating in the “sharing economy” sector as “gig economy” operators. This definition highlights one of the most controversial aspects of platform capitalism, which is the nature of employment and the divide in terms of economic and contractual power between those who design and own the platforms, and those who use them and, by using them and interacting with others, actually create economic value.

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This paper will investigate the organizational structure of the main gig economy platforms and their employment strategies; at the same time, it will take into account counter-strategies enacted by workers and subsequent decisions by regulators.

We will see that, starting from a model where platform users (who use them to work, i.e. to earn money) were seen as independent, external agents, companies were prompted to consider them as dependent employees, especially following legal battles and public opinion campaigns.

2. Theoretical Background

Platform capitalism (Srnicek, 2017; Lobo, 2014) is a term that describes a business model based on the accumulation and concentration of value in the digital economy. According to Srnicek (2017), its origins can be traced back to the Seventies, which saw an increase in productivity and subsequent overproduction, the liberalization of capital circulation, the deregulation of labour markets and, finally, a pervasive process of production outsourcing.

Platform capitalism includes several types of platforms, such as advertising platforms (e.g. Facebook and Google), product platforms, lean platforms (e.g. Uber and Airbnb), industrial platforms. The idea of platform capitalism is that online platforms extract and use very large amounts of data, which are generated by users and which are the main value creation driver. As a consequence, platforms end up appropriating all the value created by user interactions, with very little concerns for redistribution.

In this paper we will focus mainly on lean platforms, which do not own any physical asset linked to their area of business (for example, Airbnb does not own homes or hotels), and only own the software used to gather and analyse data generated by user interactions. It becomes clear that sharing practices and activities carried out by users end up disproportionately benefiting the platforms, rather than those who enact them (Vecchi, 2017; Gruzka, 2017; Scholz, 2014; Schneider, 2015).

3. Methodology

In order to answer the research question raised by this paper, which regards the relationship between organisational structure and employment strategies of companies operating in the gig economy sector, as well as the impact of counter-strategies enacted by platform users, we will adopt a qualitative methodology based on the analysis and comparison of four case examples. These were chosen on the basis of their relevance in the field, and with the aim of representing the main areas of digital gig work (housing, crowdsourcing, transportation and delivery).

The examples we selected are Airbnb, Amazon Mechanical Turk, Uber and Glovo. Each of them will be briefly presented, and the organisational structure of the company will be discussed, as well as its economic figures. Then, we will analyse employment strategies adopted by each company towards platform users, who might not immediately appear as potential employees, although they are responsible for a large parte of the value created by such companies. Another relevant aspect to investigate is how these workers interact with platforms, and the strategies they carry out, in turn, in order to gain employment rights.

We will make considerations on how these two opposing elements relate, and how the external environment comes into play, especially in terms of regulators, courts and law-makers, and what the consequences are for companies and workers.

4. Findings

We will find that, starting from a situation where platform capitalism companies are reluctant to recognise their users, who contribute to value creation and use the platforms to work, as actual employees, the very reaction by workers has the power to move public opinion and to shift regulatory paradigm in their own favour.

5. Conclusions

The aim of this research was to investigate the consequences on labour and employment of the platform capitalism model. As mentioned in the introductory section, the paper focused on the area of platform capitalism that can also be described as “gig economy”, leaving aside considerations regarding other platforms such as Facebook and Google, which also belong to platform capitalism.

The main element resulting from the paper is the opposition between platforms and individuals who use them to earn money (and who are often referred to as gig workers). Platforms, on the one hand, tend to have a lean organisational structure, with few employees compared to their budgetary figures; gig workers, on the other hand, were relegated in the category of “users” or “external/independent collaborators”, meaning that they were not subject to the platform in their work. When looking at workers’ conditions, however, it appears clear that this is not the case, as platforms have an extremely large power over them, especially in terms of deciding when and how much they can work (and, consequently, earn).

This disproportion in terms of economic and contractual power has led to workers associating and requesting platforms to recognise their rights as dependent employees. Platforms have opposed, but in several cases courts and regulators have recognised workers’ claims as valid, and prompted platforms to grant them greater rights.

The main limitation of this paper lies in the evolutionary nature of the research question: research results could change greatly if we carried out this analysis again in five years, depending on the social, political and economic context where it is set. At the same time, interesting policy implications can be derived from the findings, especially in terms of encouraging national and international legislators to regulate platform capitalism and recognise workers’ rights.

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THE EFFECT OF DIGITALIZATION ON INNOVATION CAPABILITIES THROUGH THE LENS OF THE KNOWLEDGE MANAGEMENT STRATEGY

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KEYWORDS: Digital Transformation, Digital Capabilities, Knowledge Management Strategy, Dynamic Capabilities, Innovation Capabilities.

1. Objectives

While operating in complex and turbulent environments, modern companies are being increasingly seen to go digital to gain greater competitiveness and develop resilience to shocks (Akter *et al.*, 2020; Ashwell, 2017; Miklosik & Evans, 2020). Recently the situation shaped by the COVID-19 propelled each organization to digitally transform to adapt to the disrupting circumstances and leverage the new business opportunities (Feroz *et al.*, 2021). The benefits deriving from this digital adaptation such as the optimization of resources, the reduction of inefficiencies, the multichannel integration, the deeper understanding of customers, and the innovation capacity consolidated the significance of the digital transformation (DT) in the industry 4.0 era. Thus, having embraced various elements of business and everyday life, digitalization became one of the most important ongoing transformations of our present society.

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Innovation is a multidimensional concept, which involves organizational and procedural aspects of a company, aimed at improving performance in terms of production efficiency and/or reducing production costs (Khan & Khan, 2019; Schumpeter, 2000). As the efficiency-oriented focus of process management spreads to the centres of innovation, it starts affecting organization's dynamic capabilities (Di Vaio *et al.*, 2021). Dynamic capabilities are high-level abilities that contribute to adaptation to the changes of the environment through the management and reconfiguration of lower-level resources, routines and capabilities (Eisenthart & Martin, 2000; Warner & Wäger, 2019). The adoption of technological solutions for the development of new processes and products, habits, and good practices increases the innovation capacity of companies, enabling them to meet the needs of a continually changing market. And contrariwise, innovations generated within or absorbed by firms provide variation to proactively shape or reactively respond to technological transitions (Gil-Gomez *et al.*, 2020). Therefore, dynamic capabilities represent a suitable approach to study the effect of technological innovation on the organizations (Ferraris *et al.*, 2018; Rialti *et al.*, 2019).

2. Theoretical Background

As it comes from the organizational theoretical background used to explain the disruptive effects of DT on businesses, knowledge management (KM) has come to be an effective source for determining strategic direction and developing competitive advantages from the exploration and exploitation of data and information (Gaviria-Marin *et al.*, 2019). In this regard, KM could be understood as a dynamic capability that serves to acquire and assimilate resources by incorporating tools, platforms and digital content to face constantly changing environments (Bresciani *et al.*, 2021). Therefore, the knowledge management strategy (KMS) should be oriented towards developing dynamic capabilities, such as knowledge management and innovation that allow the company to approach the DT, following the organizational strategic direction (Bolisani & Bratianu, 2017).

All things considered, this study focuses on the analysis of specific relationships between digital transformation and knowledge management strategy. Once, these relationships are suggested to have an impact on the company's innovation capabilities, the goal of this research becomes to explore the effect of DT on KM, and how this contributes to the business and innovation results of the firm. In doing so, this paper establishes the following objectives to be addressed: (1) to study the impact of DT on business results; (2) to analyze how DT contributes to improve the company's innovation capabilities (3) to examine the impact of DT on KMS of the firm and eventually (4) how KM influences the company's innovation capabilities?

This research targets the computing, technology, software programming and consulting sectors that seem to be most engaged in the DT process, continuously generating digital capabilities and innovation so far (Keong & Dastane, 2019).

3. Methodology

On the basis of the four suggested hypotheses, a structural equation model is developed and statistically tested through Smart PLS 3 (See Figure 1):

H1: DT positively influences business results.

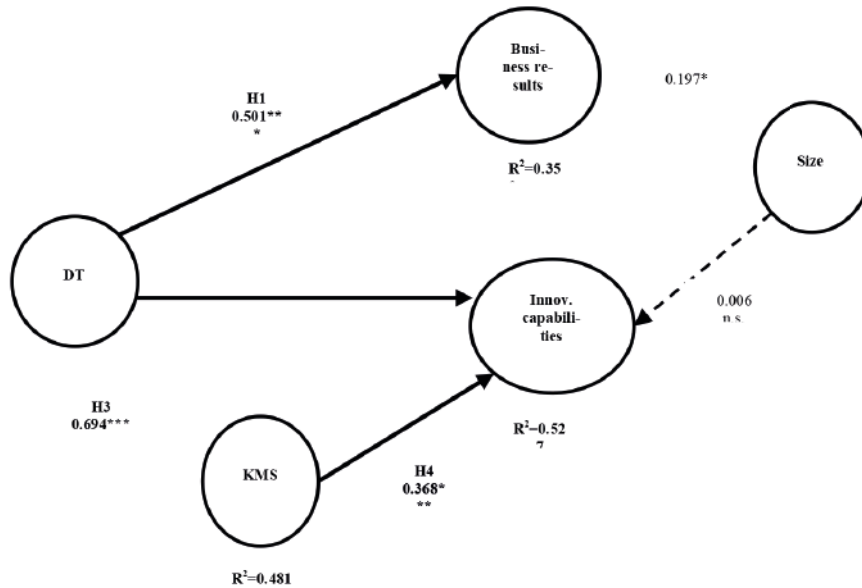
H2: DT positively influences innovation capabilities.

H3: DT improves KM efficiency.

H4: KMS positively influences innovation capabilities.

The study's scope includes 620 Spanish companies specialising in consulting in Castilla – La Mancha and Madrid. Specifically, these activities were considered: information technology, technology (the rest), consulting and programming. Finally, 78 valid questionnaires were collected, which represents 12.78% of response rate.

Figure 1. Research model and results.



* Significant with $p < 0.05$; ** Significant with $p < 0.01$; *** significant with $p < 0.001$; n.s.: not significant.

4. Findings and Conclusions

We have analysed the effectiveness of the impact of DT and KM on innovation capabilities and business results. That is to say, the specific objectives were achieved, and from the theoretical perspective, our research contributed to advancing the empirical evidence on the innovation capabilities' drivers by stressing the role of DT and KM.

All the hypotheses of the present work are significant. The moderating effect of knowledge management strategy is partial because the direct relationship between digitalization and innovation capabilities is significant. In this sense, it can be affirmed that digitalization has a positive influence on business results; digitalization has a positive effect on innovation capabilities; and, in addition, digitalization makes knowledge management within the company more efficient. Likewise, it is shown that knowledge management has a positive impact on innovation capabilities.

The relevance of the previous indicators, linked to digitalization and knowledge management, as well as the items corresponding to the innovation capabilities and business, converge with the results obtained in other research (Ben-Gal, 2019; Eggert and Alberts, 2020; Guadamillas and Donate, 2009; Gunasilan, 2019; Wang and Hou, 2015).

Finally, it can be concluded that digitalization is a key enabling factor to provide internal efficiency in organizations and to provide external opportunities, such as new offerings to customers. In parallel, there may be disruptive changes in the company's operating environment caused by digitalization. All these changes can translate into success even though digital transformation is a multidimensional concept. The situation of each company is distinct, therefore, there is no unique formula to approach digitalization.

5. Discussion

This paper offers a comprehensive foundation on which to base future research efforts in evaluating the ways in which companies need to approach DT, develop digital and innovation capabilities, the role of KM in this process and the effects on innovation performance.

6. Research limitations

Like all research, this study is not exempt from limitations. Thus, the main condition is perceived to include several sectors without focusing on a specific one in order to favour and obtain more specific results. On the other hand, in future research lines, the possibility of analysing the need to advance on a wide range of fronts that the analysis of human resources grants to the new business paradigm stands out. Therefore, the future of Big Data could be closely related to that of knowledge management. Even the brief treatment given to knowledge management frameworks, strategies, and cultures in this paper should have indicated that little or no attention has yet been paid to these areas in the "Big Data" literature. It is quite possible that Big Data will turn

out to be not only a disruptive, but also revolutionary development. In addition, it is worth adding the possibility of analyzing in depth the application of the People Analytics tool, with the aim of achieving better strategic planning of companies.

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ARTIFICIAL INTELLIGENCE AND PATIENT EMPOWERMENT IN THE HEALTHCARE INDUSTRY

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KEYWORDS: Artificial Intelligence Patient Empowerment Health Care.

1. Objectives

By 2020, the healthcare industry reached the era of high technological advancements like Artificial Intelligence and its influence in robotics, augmented and virtual reality (Accenture, 2017; PWC, 2017).

Yet, the industry was shook by the COVID-19 pandemic pushing humanity towards full digital adoption while proportionally increasing the cybersecurity attacks issues as people were using digital technologies more in their everyday life (Nabe, 2021). Thus, the pandemic has put a magnified lenses on data privacy concerns as governments were using different tracking technologies (utilising people private data) that were not used in normal conditions to manage the spread of the COVID-19 virus (Zwitter & Gstrein, 2020).

Driven by the technological era and the COVID-19 pandemic, this study aims to theoretically suggest that patients' control over their data privacy is patients' empowerment tool, and it solves one of the obstacles facing the applications of Artificial Intelligence in healthcare as a knowledge management tool.

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2. Theoretical Background

2.1. *Artificial Intelligence as a Knowledge Management Tool*

Artificial Intelligence (AI) is the branch of computer science dealing with simulation of intelligence behaviour in computers or the capability of the machine to imitate intelligent human behaviour (RADICK, 2017). Kaplan and Haenlein explain it as a system ability to interpret external data correctly, to learn from such data and to use those learnings to achieve specific goals and tasks through flexible adaptations (Haenlein & Kaplan, 2019).

As from the above definitions, AI algorithms utilize the data (patients' data) to interpret and extract useful information from these data and then learn from these data. This process transforms data into knowledge (Davenport & Prusak, 1998) .

AI then is a knowledge management tool specifically a tool of knowledge embodiment that works in the powerful transformation of data into valuable form (Pee *et al.*, 2019) to be utilized as knowledge.

Knowledge management practices enhance decision making support in healthcare (Sibte & Abidi, 2001) as the healthcare industry is a knowledge based community depending in connection between hospitals, clinics , pharmacies and patients in sharing knowledge (Bose, 2003). High knowledge management tools effect positively in any healthcare facility competitive advantage while enhancing the organisation continuous learning (Kothari *et al.*, 2011).

In innovative industries like the healthcare industry, knowledge management practices also proved to enhance innovation (M. Donate & Guadamillas, 2015; M. J. Donate & Guadamillas, 2010).

Artificial intelligence (AI) as an innovation has proved its potential benefits in different applications in healthcare. As stated by the World health organization (WHO), AI also was a beneficial tool in different responses related to the COVID-19 pandemic including the vaccines development (Keshavarzi Arshadi *et al.*, 2020; WHO department of Digital Health and Innovation, 2021).

2.2. Big Data in Healthcare and Patients' Empowerment

The digital evolution resulted in the explosion of big data and thus enhancing possibilities of artificial intelligence algorithms (Marr, 2015) as they are designed to learn from these data through machine learning.

Although there are issues that are considered obstacles in leveraging AI like data interoperability and the lack of shared framework between organisations developing AI solutions (Jiang *et al.*, 2017; Panch *et al.*, 2019; Woo, 2019), or the complexity of the healthcare organization culture (Jones *et al.*, 2019; Möller & Moser, 2020). There is another critical obstacle which is data sharing related to privacy concerns with the data being a determining factor in the development of the applications of Artificial Intelligence (Floridi *et al.*, 2019; Radick, 2017).

Within the healthcare exists a big debate of data control and privacy, maybe due to the early problems that has been publicized greatly like in the project of Google DeepMind agreement with the british National Health services (NHS) and the failure in securing patients data act in the case of the royal hospital (Hern, 2017; Hudson, 2016).

In healthcare literature, the concept of patient empowerment has been around since the 1990s when the late Tom Feruguson, M.D defined the E-Patient whom is (empowered, engaged, equipped and enabled). Dr. Tom was an advocate for participatory medicine and the increasing role of patients In managing their own healthcare based upon a partnership between the patient needs and expertise of the physician (Davis & Gourdji, 2019).

Patients empowerment is defined by the World health organisation (WHO) as a “process through which people gain greater control over decisions and actions affecting their health” (WHO, 2009) and should be seen as both an individual and a community process.

Solving data concerns could rely upon the patients willingly sharing thier data according to a report by KPMG (KPMG, 2019).

3. Methodology

The study included reading literature and industry reports about the applications of Artificial Intelligence (AI) in healthcare. Identifying the problems of leveraging AI in the healthcare industry and proposing a solution through the concept of patients empowerment in healthcare.

4. Findings

The issue of data privacy is one of the hindrances standing in front of the availability of data which is a core need for more advancements in the applications of Artificial intelligence in healthcare.

It is identified as one of the problems standing in its development. Table 1 indicates summaries of researched literature (Journal articles, industry reports) mentioning hindrances of adoption of AI in healthcare:

Table 1. Researched literature indicating obstacles in leveraging AI in healthcare.

Obstacle	Researched Literature
The healthcare organisation culture	(Jones <i>et al.</i> , 2019; Möller & Moser, 2020)
Resistance inside healthcare organisations	(Woo, 2019)
Regulations	(Haenlein & Kaplan, 2019; Jiang <i>et al.</i> , 2017; Kerasidou, 2020)
Data interoperability	(Jiang <i>et al.</i> , 2017; Panch <i>et al.</i> , 2019; Woo, 2019)
Ethical concerns	(Cossy–Gantner <i>et al.</i> , 2018; Vincent, 2016)
Data privacy concerns	(Floridi <i>et al.</i> , 2019; Gerke <i>et al.</i> , 2020)

The role of patients empowerment is clearly identified in healthcare and according to industry reports like accenture, patients think positively of AI and its possibilities (Accenture, 2017). The solution to data privacy issues standing in the advancements of applications of Artificial Intelligence in health care then could be in patients sharing willingly their data (KPMG, 2019) leading to more patients empowerment.

5. Conclusions

Although it is important to mention that data privacy and control is a complicated issue and holds within its layers a lot of complexity and regulatory parts. The active role of patients over the control of their data could be an empowerment tool for them and also an enhancer for data availability for technological advancements like the Artificial Intelligence.

Thus this study participates positively in highlighting the potential role of patients empowerment in enhancing better adoption of Artificial intelligence in healthcare.

This aligns with the focus of the patient being engaged in their healthcare decisions and being more empowered.

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THE GENERATIVITY OF SPORT AS A TOOL FOR SOCIAL VALUE CREATION IN THE POST-COVID ERA

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KEYWORDS: Sport, Generativity, Public Policy, Value Creation.

1. Objectives

COVID-19 pandemic revealed, among the others, the impact that sport and active recreation activities have on people wellbeing. During lockdown the closing of sport and recreational activities was not only an issue in terms of physical wellness. It was much more in terms of healthy lifestyle, social relations, antistress therapies thus influencing mental happiness. It is therefore increasing the idea that sport should be an important part of any government's social reactivation agenda in the post pandemic phase (IOC, 2020).

The observation of sport as a regenerative tool in the post pandemic phase is indeed based on the consideration that (apart from the already acknowledged benefit on health) tailored sport initiatives for all could also: increase levels of trust, urban renewal, reduce anti-social behaviour, increase community pride and identity creation, increase social connectedness and inclusion (Zubrik *et al.*, 2021).

Nevertheless, if on one hand all agree in considering sport as part of post-COVID-19 recovery plans (United Nations, 2021), on the other hand it is not easy to manage these plans because there are no reference

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points and theories specifically tailored for addressing the social public value of sport.

Therefore, considering the power of sport in the post pandemic recovery strategy, this research wants to examine the state of the art of actual experiences of non-professional sport initiatives towards public value creation. Particularly we aim at investigating the role of sport in fostering social wellbeing, inclusion and sub-urban areas development, with the goal to support public policies about the implementation of sport-driven programmes for reducing social inequalities and enhancing dynamic community growth.

Our research intends to open a route in addressing the public value creation of sport, referring to the concept of generativity which, from its initial formulation by Erikson (1950) within the field of Social Psychology, is finding several interpretations, implications, and applications within Social Sciences.

2. Theoretical Background

The role of sport as means of public value still remains a field of interest for public management studies without any structured framework or references. Accordingly, the different relevant aspects of public value of sport are considered separately (Hoye & Parent, 2016). Therefore, there is not yet a reference framework for considering the different multi-faceted aspects which contribute to its generation of public value.

In looking for a reference framework to support our investigation of sport-driven programmes in the post pandemic, we thought to test if generativity could be a valid reference theory.

Since its initial formulation by Erikson (1950, 1959, 1964) within the field of Social Psychology, the concept of generativity is finding several interpretations, implications, and applications within Social Sciences. Generativity is primarily defined as the capacity to positively influence one's own community with personal action. It is based on the assumption that individuals are moved by a sense of life satisfaction which rewards for what they are doing for the civil progress and for the

wellbeing of those who will follow. Accordingly, generativity is recognized as the combination of 1) *creativity* and 2) *care for other people* wellbeing as the main drivers of life sense and life satisfaction in adult life.

Within studies regarding Sustainable development of a society, generativity has been settled within human interaction, finding that it has a positive association with social involvement in aspects such as charity, mentoring, nursing, volunteering, teaching, religion and political activity, for the benefit of the next generations (Timilsina *et al.*, 2019). Moreover, generativity refers also to the quality of urban planning according to a proactive process of involvement and collaboration of citizenship aimed at an urban development which takes into account real needs of the population (Mehaffy 2008). In the field of public policies Becchetti and Conzo (2021) found that the role of generativity can be extended at country level as a driver of resilience, intended as the capacity to revert as quick as possible to the previous wellbeing level after a negative shock.

3. Methodology

We conducted a two stages enquiry. The first one consisted of a web-based desktop research on both public and private financing sport-based projects, held in Italy in the last years, whose declared missions (coherently with the generativity metrics) were to create value for citizenship through the engagement obtained by sport activities. The research engine was Google. The leading search criteria was steered by the goal to pointing out those projects/programs recognized by official websites of Italian Institutions as virtuous experiences of value creation for the country.

In the second stage we inquired the real-life context of sport-based non-profit associations by intercepting a key informant, enquiring a pilot case study (Yin, 2014). Particularly, it has been designed on “face to face” interview (Said *et. al.*, 2017) with a leading member of the Italian non-profit association, named Calciosociale (Socialfootball), involved in sport activities. The choice of enquiring Calciosociale experience is due to the fact that it was awarded and presented to the Council of the European Union, in 2014, by the Minister of Sport as the “Italian Best Practice for Sport and Social Inclusion”.

We framed our interviews as open, semi-structured questions, related to the pillars we depicted from generativity and public value references, by adapting such frameworks to our case. We drafted 21 questions and 8 control questions subdivided in the following categories: context; translation from generativity; economic sustainability; public value.

4. Findings

We depicted and analysed 5 programmes within those identified through our web-based desktop research, whose main aspects could be reconsidered in terms of generativity. Particularly we found that sport is handled for fostering initiatives aiming at:

- support the growth of youngsters in a socially inclusive perspective;
- spread the culture of legality in disadvantaged areas and at high risk of crime and social exclusion;
- promote social inclusion of foreign people;
- promote the inclusion of disabled people.

Regarding Calciosociale association itself, the interview revealed as it was founded to use football as social container for inclusion of diversities and for learning civic behaviours and respect for everything is around an individual. Football game becomes a “metaphor” of life, because the same football field can involve, playing together, people with different age and gender and especially with different backgrounds, social problems and psycho-physical disabilities.

The idea started from personal founder’s experiences which led to re-think the football game towards its potential role as vehicle for social wellbeing. Particularly, founder’s creativity was initially applied in re-writing the rules of a football towards its involvement in social inclusion, respect of other and providing activities aimed at regenerating the urban environment.

Accordingly, activities designed by the association start always from the precondition that “taking care of others” is a holistic concept which encompasses several interrelated aspects of life. Thus, sport from this point of view can be a leverage of general wellbeing, because its values

and its potentialities in aggregating people contribute in creating social values.

Calciosociale is integrated with all the social services within its area, and it, de facto, operates when public institutions fail in providing direct support to citizens. In some sense Calciosociale plays its role in terms of commitment and responsibility about the community growth and its necessities thus creating public value. Practical examples are the following:

- building the “Miracle field”, which was a public good completely destroyed, that was requalified;
- urban requalification of Corviale area, sub-urban in Rome;
- working integration for NEET (Not [engaged] in Education, Employment or Training) young adult;
- human requalification.

5. Conclusions

Our research results found that sport and sporting activities could play a crucial role in creating value for citizenship; therefore, for public management arms, the involvement of associations committed on social issues through sport practice could be considered an efficient tool for reactivation plans in the post-COVID-19 phase.

In a public management point of view, the involvement of voluntary associations engaged in sport, can certainly be considered a good strategy both for the detection of population needs and for the provision of services.

Accordingly, public institutions should expand, in the post-COVID-19 recovery plans, collaborations with sport associations involved in the social sector, taking advantage of the favourable link between sports practice and the population wellbeing. In this sense, associations could become a channel chosen by public agencies for resilience and community wellbeing towards value creation and service providing to communities.

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THE EFFECT OF OTC MEDICINES ADVERTISEMENTS ON TELEVISION DURING THE COVID-19 PANDEMIC ON PURCHASE INTENTION: A QUALITATIVE STUDY ON ACADEMICS

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KEYWORDS: Over-the-Counter Medicine, Drug Marketing, OTC Medicine TV Ads, Semi-Structured Interview.

1. Objectives

The study aims to measure the effect of supplementary food advertisements on national television channels in Turkey since the beginning of the COVID-19 pandemic on the purchase intentions of academicians. The main problem of the study is to raise awareness of supplementary foods, to develop perception and attitude, and to reveal whether the supplementary food advertisements broadcast on television during the pandemic process affect the academicians' intention to purchase.

2. Theoretical Background

Health, which is a sensitive subject, is a vital phenomenon in maintaining and protecting individuals' vital activities. Individuals who strive to keep the immune system strong with physical, mental, and psychological activities that develop due to being healthy prefer to use over-the-counter medicines called supplements or OTCs in the pharmaceutical

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industry. OTC drugs are the general name of drugs that can be easily purchased from the pharmacy without the instructions of a health professional and are effective and safe if the instructions are followed and used (Kartal and Arisoy, 2017: 315). The American Food and Drug Administration (FDA) defines OTC drugs, which play a vital role in the American healthcare system, as safe and effective drugs used by the general public without being treated by a healthcare professional (FDA, 2020). Supplementary foods are prepared in various forms using nutrients such as vitamins, minerals, proteins, amino acids, plants, enzymes, fiber, and fatty acids (FSNA, 2020a).

Individuals can buy and use supplementary foods from the pharmacy in case of disease, based on their previous experiences or through advice (Pinar *et al.*, 2013: 640). The primary benefit of OTC medicines is the ease of direct purchase; it is offered to consumers in pharmacies, supermarkets, other retail stores, and online sales sites. In addition, OTC drugs can help the individual in fulfilling the increasing self-care desire of the consumer (Koinig *et al.*, 2018: 2).

Since OTC drugs do not require a doctor's prescription, drug brands that aim to affect purchasing intention and behavior in consumers tend to develop an advertising-oriented marketing strategy (Main *et al.*, 2004: 122). At this point, the advertising and marketing practices of the OTC pharmaceutical market in many countries have gained great momentum with the abolition of the broadcast ban. The Radio and Television Supreme Council of Turkey (RTUK) allowed non-prescription drug advertisements to be broadcast on television in Turkey in 2011, thus paving the way for the promotion of food supplements such as vitamins, minerals, weight loss products, probiotics, and sexual products used by individuals on media channels.

It is thought that the awareness and interest levels of consumers who want to be protected from the effects of the ongoing COVID-19 disease, which is a global health crisis, have increased. As a result of the research, it was determined that the tendency to food supplements increased to strengthen the immune system against the risk of contracting the disease. In this context, the study conducted by the Turkish Food Supplement and Nutrition Association is important. FSNA conducted consumer research in three different periods (April 2020, December

2020, July 2021) during the COVID-19 pandemic process and measured the level of knowledge, perception, and behavioral patterns for OTC drugs (FSNA, 2020b). According to the results of the online survey conducted in 12 provinces in Turkey (Istanbul, Ankara, İzmir, Adana, Bursa, Erzurum, Gaziantep, Kayseri, Malatya, Samsun, Trabzon, Edirne), it was determined that the use of OTC drugs increased by 73% and the increase in trust reached 38%. The first reason that affects the motivation of consumers to use OTC drugs is the strengthening of immunity in order not to get COVID-19 disease.

According to the data of scientific research conducted by FSNA as an official authority in Turkey, COVID-19 disease directly affects consumers' food supplement use preferences. In this context, it is important to know to what extent individuals are affected by advertising activities on television and whether they develop purchase intention in terms of choosing OTC drug brands during the pandemic process.

3. Methodology

The questions of this research, which examines the role of OTC drug advertisements broadcast on national television channels in raising awareness of academicians about perception and attitude development and purchase intention in Turkey, are as follows:

- During the COVID-19 pandemic, does television advertising have a great impact on the level of awareness of academicians about OTC drugs?
- What is the perception of academicians about OTC advertisements broadcast on TV during the COVID-19 pandemic?
- Do OTC advertisements broadcast on TV during the COVID-19 pandemic have an effect on the purchase intention of academicians?
- Does the interest level of academicians in OTC ads broadcast on TV differ before and after the COVID-19 pandemic?

In this study, a qualitative research design will be used and the data will be obtained by semi-structured interview technique, which is one

of the qualitative research methods. The reason why the interview technique is preferred is that it provides an understanding of unobservable situations such as consumers' experiences, attitudes, thoughts, perceptions, and reactions (Merriam, 2009: 14).

The universe of the research consists of academicians working in two state universities in Malatya. Qualitative research methods aim to obtain a holistic picture. For this reason, purposeful sampling is frequently used in qualitative research methods. Purposeful sampling methods are useful in exploring and explaining phenomena and events in many cases (Yıldırım and Şimşek, 1999: 136). In this context, the purposeful sampling method was used in the study. Face-to-face interviews will be held with 15 academicians who work in various faculties and colleges of Inonu University and Malatya Turgut Ozal University in Malatya, Turkey and who have the habit of watching television. Academics shall not be subject to any limitations in terms of age, gender, title, and marital status. The reason why academicians are preferred as a sample is directly related to the level of education and the level of consciousness of the faculty members with the least master's degree.

An interview form was created by the researchers for the questions to be asked to the participants within the scope of the semi-structured interview. The questions in the interview form were prepared under the purpose of the study and they were 15 questions about the demographic characteristics, the participants' levels of OTC drug use before and after COVID-19, and their opinions on OTC drug advertisements on TV.

In the first part of the semi-structured questions, there are 4 demographic questions (age, gender, academic title, marital status). The first 3 questions of the second part are related to the status, type, and frequency of supplementary food use of the participants before the COVID-19, and the next 2 questions are related to the status, frequency, and reason of use after the pandemic. The other 6 questions are related to supplementary food advertisements published on TV and are aimed at determining the evaluations, perceptions, attitudes, and purchase intentions of the participants regarding the advertisements. Before the interview, the participants will be briefly informed about the

purpose and importance of the study, and permission will be requested from the participants to record the interview. It is predicted that an interview will last between 10–and 15 minutes.

4. Findings

In the first step of the semi-structured interview, the answers given by the participants to the demographic questions will be evaluated. Particular attention will be paid to the distribution of 15 academic participants in equal numbers (8 males, 7 females, or 8 females, 7 male), especially in terms of gender factors. Regarding the gender factor, it is predicted that OTC drug advertisements on TV will differ according to the purchase intention of female and male academicians, and even the rate of female academicians will be high.

On the other hand, it is thought that the use of OTC drugs by a high proportion of participants before the COVID-19 will be determined to be low. However, although it is predicted that the participants will have low levels of OTC drug use, it is predicted that their level of awareness of these drugs will be high. There are studies in the literature that support this prediction. In a study, it was found that OTC drug awareness varied according to the level of education, and specially educated individuals with high health awareness went online by watching their ads on TV or being aware of individuals using OTC drugs in their immediate environment (Özbekler, 2019: 6876). In another study, it was determined that individuals' health awareness was more effective in attitudes towards OTC drugs (Lee *et al.*, 2015: 442).

It is thought that most of the participants used at least one OTC drug with the motivation to keep the immune system resistant to the disease during the COVID-19 process. It is estimated that the reference point of this user experience is mostly due to the recommendation of health professionals.

Since the participants have the habit of watching TV, it is thought that all participants encountered OTC drug advertisements broadcast on TV, and as a result of this coincidence, their recall levels for the advertisement will be determined at a high rate.

As a result of the question to be asked to determine the elements that attract the attention of the participants about OTC drug advertisements broadcasted on TV, it is thought that the main color used (such as the intense yellow color of the vitamin C brand in the advertisement) with the celebrity who plays in the advertisement will be determined to be effective.

The last 3 questions in the interview form will be to measure the effect of OTC drug advertisements on participants' perceptions, attitudes, and purchase intentions. In this context, the predicted result is that the participants will have an effect between low and medium levels of TV advertising. In a study supporting this prediction, it was determined that television advertisements moderately affected the interest in OTC drugs and purchasing behavior (Ştefan *et al.*, 2021: 154).

5. Conclusions

With the lifting of the advertising ban on supplementary foods, marketing and advertising applications of these products have started to take place widely in different media channels. Although changing consumer behaviors and global crises in the modern marketing age affect the size of these communication efforts, television, which is still one of the dominant channels, is preferred by brands due to its accessibility and prevalence. The results of this study, in which we will try to reveal the effect of supplementary food advertisements broadcast on the perception, attitude, and purchase intention of academicians, in which all countries of the world continue to experience a global health crisis with the COVID-19 pandemic, are that academicians have awareness of these advertisements, experience them at least once to avoid getting sick during the pandemic process, but in general, the advertisements do not affect the purchase intention and even think that these advertisements are misleading and deceptive.

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THE BRAND EXPERIENCE AND THE ENGAGEMENT LIKE INFLUENCERS ON CENTENNIAL'S DECISIONS MAKING IN THE DERMO-COSMETICS SECTOR IN SPAIN

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KEYWORDS: Consumer Behavior, Brand Experience, Emotions, Engagement, Skincare Cosmetics.

1. Objectives

The purchase decision is based on pillars such as brand experience, brand engagement. The aim of this article is to provide an overview of the importance of the concept of customer experience, engagement and purchase decision making in the dermo-cosmetics sector for Centennials in Spain.

After a review of the bibliography of the key constructs, it was considered appropriate to approach the target public by means of an online survey. This survey will show a snapshot to find out whether young people are concerned about the care and well-being of their skin. To find out how much they spend on the monthly purchase of this category of products. As well as to know which purchase channels they usually use. It will also allow us to find out whether they take advice from family members, professional experts, pharmacists or doctors specialising in skin problems, among others, on the correct choice of products.

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2. Theoretical Background

2.1. *The Importance of the Dermocosmetic Industry and the Focus Target, the Centennials*

The dermocosmetic industry is expected to reach a global market value of \$800 billion by 2023 (CB Insights). According to the Spanish National Association of Perfumery and Cosmetics (S.T.A.N.P.A based on its Spanish name) the sector is experiencing continuous investment and growth as a result of the increase in life expectancy and advances in health care and hygiene.

Products which are associated with skin health represents 52% of the total demand. This category is followed by Perfumery, Hair Care and Colour Cosmetics. Per capita consumption in Spain exceeds that of the EU, at €150 and €135 respectively. Each Spaniard buys approximately 28 product units per year and uses between 6 and 8 products per day.

The challenge for this sector is a new target audience, the Centennials. Born between 1997 and 2012. The Generation Z, in this category are characterized as being communicative, inclusive, realistic, they seek the truth in their favorite brands and commitment to the customer and to the planet in a global and digital market (Lenhart, 2015).

The crisis caused by the COVID-19 pandemic has been reflected in psychological factors, in the social feeling, and in the mental and physical health of citizens (Hernández, 2020). New habits in the consumption of goods and services have also been created (Sheth, 2020). Anxiety problems, stress, self-isolation, have been reflected in consumer decision making and some lower sales, although certain areas such as personal care and pharmaceuticals have increased by 11% (PWC, 2020). It is estimated that it will take three to five years to return to a framework of normality, albeit with behavioral differences in consumption priorities (Russell *et al.*, 2020).

2.2. The Customer Brand Experience

The most studied purchase stimuli are based on product attributes such as brand colours (Bellizzi & Hite 1992), shapes (Veryzer & Hutchinson 1998), typefaces and design. Others are the attributes referring to its identity such as naming, logo, slogans, characters, and drawings that make up the brand (Keller, 1987). These attributes become stimuli perceived by the consumer, which are conceptualised as perceptions, sensations, feelings and emotions. They multidimensionally be part of the brand experience. These experiences are stored in the consumer's memory, recall and learning, and thus affect consumer choice, satisfaction and loyalty (Oliver, 1997).

2.3. The Brand Engagement

The concept of engagement is heterogeneous and multidimensional (Aguilera, Baños & Ramírez, 2016). It is influenced by social, relational, experiential and psychological factors observable in environments and contexts where and for which they are produced.

Brand engagement is based on a certain motivational level in the customer relationship and context. Emotional attachment to the brand is also implicit. It is an emotionally charged, goal-specific bond between a person and a particular brand (Thomson, MacInnis & Park, 2005).

2.4. The Making Desitions

In contrast to rational or classical economics, behavioural economics has emerged. Kahneman and Tversky, in 2013, argue that individuals have cognitive biases and make irrational decisions that are biased in orientation. Hence, the mental models formulated in the brain are a set of opinions, theories, values, paradigms and beliefs, which they use to receive and interpret all information received in the environment.

The somatic marker determines an inability to make good decisions without considering the emotional mechanism (Bechara, Damasio &

Damasio 2000). The best decisions arise from an appropriate combination of the reason–emotion binomial.

In the decision–making process, the prefrontal cortex, the ventro–medial area of the prefrontal cortex which is associated with sensory pleasure, and the limbic system with the insula, amygdala and hippocampus, which is activated as a result of recall, memory of previous personal experiences, and emotions, are activated (Mc Clure *et al.*, 2004).

3. Methodology

The study was carried out with 336 Centennials (18–28 years of age) from two universities in Madrid (public: Rey Juan Carlos and private: Francisco de Vitoria). Students were encouraged to participate by posting the link to the survey and the deadline for accessing it. Also, they signed the informed consent. The questionnaire was conducted online with Qualtrics customer experience software between March and April 2020. (Link: <https://bit.ly/CBEDC2020>).

The questionnaire was composed of 6 blocks of questions with items to choose depending their experience with this category of products. The blocks are related to social data, to skin care, to purchasing behaviour, to the budget for purchase, to the professional advice, to the channel for shopping, and the to brand preferences.

Figure 1. Block if questionnaire questions. SOURCE: Author's own creation.

Blocks of questions	Nº Q	Ítem
Gender	Q1	Men
	Q2	Women
Why do you take care of your skin?	Q3	Health
	Q4	Beauty
	Q5	Skin disease
	Q6	I don't take care of my skin
Have you suffered or do you suffer from any skin problems?	Q7	Yes
	Q8	No
How much do you usually spend per month on dermo-cosmetics products?	Q9	From 1 to 25 €
	Q10	From 25 to 50 €
	Q11	From 50 to 75 €
	Q12	From 75 to 100 €
	Q13	From 100 to 150 €
Have you received professional advice on how to care for your skin?	Q14	From pharmaceuticals
	Q15	From doctors
	Q16	From Beauty and skin care advisor
	Q17	I have received no advice
¿ Which shop do you prefer for buying your products?	Q18	Pharmacies
	Q19	Brand shops
	Q20	Big Stores
	Q21	Supermarkets

Participants were asked to choose 3 of the 31 health and skin care brands offered. The brands presented ranged from low-cost to luxury products and were sold in all distribution channels.

Figure 2. Brand pool of choice. SOURCE: Author's own creation.

Dermo-cosmetics Brands			
1º	APTONIA	17º	HAWAIIAN TROPIC
2º	AQUA DI PARMA	18º	ISDIN
3º	AVÈNE	19º	KLORANE
4º	AVON	20º	L'OCCITANE
5º	BABARIA	21º	LA ROCHE POSAY
6º	BIODERMA	22º	LANCASTER
7º	BIOTHERM	23º	LANCÔME
8º	CERAV	24º	MELVITA
9º	CHANEL	25º	NEUTROGENA
10º	CLINIQUE	26º	NIVEA
11º	CAUDALIE	27º	NUXE
12º	DOLCE&GABBANA	28º	PIZ BUIN
13º	DOVE	29º	REVLON
14º	EUCERIN	30º	RITUALS
15º	GILLETTE	31º	WELEDA
16º	GUERLAIN		

4. Findings

In the blocks of questions on motivation for the purchase and use of this category of products, consumption habits, allocated budget, purchase channels and brand selection, the following data were provided.

For the reason why they invest in this category of products, 49.60% do so for health and wellbeing, 19% for beauty and 17.60%.

For the treatment of a skin problem, 55.31% have suffered it, such as acné 42% and atopic skin 31.11%.

They were asked about the monthly budget they allocate to these products ranging from €1 to more than €100. 62.50% spend less than €25, followed by 26.02% who spend less than €50 and 7.58% with a

budget of up to €75. Only 4% spend or allocate more than €100 per month to these products.

In terms of purchasing channels, 38.21% of university students buy these products in pharmacies, followed by department stores with 29.85% and perfumeries with 16.46%.

Finally, the most popular brands were Nivea with 15% of the total number of choices, followed by Clinique with 8.51%, and finally Isdin and Dove with 7% respectively.

5. Conclusions

This study investigates the preferences of young university students towards dermocosmetics brands that aim to respond to their usual or everyday needs within the framework of experiential marketing. This gives the picture of young people's consumption.

The chosen brands, Nivea multigenerational and family friendly, Clinique and Isdin skin care and pharmaceuticals, and Dove inclusive and activist brand sold in supermarkets. The different needs, budgets and identifications are reflected in their consumption like a global market.

As a future development to this study it would be interesting to analysis in more depth the dimensions of the experience to better capture the interests of Centennials and to develop new strategies to strengthen empathy and engagement.

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GUARANTEE BRANDS AND TRUST GENERATION: CONTEXT OF COVID-19

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KEYWORDS: Guarantee Brands, Trust, Intention to Visit, Tourism, COVID-19.

1. Objectives

The COVID-19 pandemic has caused a great economic impact on the tourism activity; tourist flows have been reduced, and this has caused a sharp drop in employment and gross domestic product.

Different studies conclude that visitors want security guarantees when traveling; they also declare that cleanliness is the key factor in choosing accommodation, as an element that makes them feel safer.

Therefore, it is necessary to study the sector in order to implement measures that allow recovering the confidence of tourists. In this sense:

- advertising campaigns have been launched to position destinations as safe,
- different measures have been implemented in organizations to prevent contagion,
- and the compliance of sanitary protocols has been certified with different distinctions: Safe Tourism Certified, Responsible Tourism, Safe Travels, ..., as usual in normalization processes.

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Although the existence of different distinctions can lead to confusion on the part of the society, on the other hand, it is a clear exponent of the importance of these tools in the tourism industry.

The launch of guarantee brands has been carried out to contribute to the generation of trust.

In the tourism industry, the destinations are striving to recover the confidence of tourists, an element that has been strongly affected by the context of the COVID-19 pandemic. To get this, organizations have adopted hygienic measures, improved service with attention to social sustainability and advances digitalization.

The current research is focused on analyzing the effects of guarantee brands on trust in the tourist sector, especially those that are used in the context of the COVID-19 pandemic, with the final aim of generating consumers' trust in destinations, influencing the intention to purchase or visit a destination.

2. Theoretical Background

In the context described above, society's risk aversion and purchasing power become the two variables that will influence the recovery of tourism activities (Navarro *et al.*, 2020). In addition, these authors point out image management as an important research topic in this current context, through the generation of security by destinations and companies, through measures that ensure hygiene, as well as the need for correct perception by visitors, to overcome fear and renew the visitor's confidence.

The different theories of tourism consumer behavior have shown the influence of tourists' image of a destination in the decision process (Moutinho, 1984; Gartner, 1993; Baloglu and Brinberg, 1997). Thus, a good image will influence the individual's confidence in the destination, by reducing risk and uncertainty (Mayer, Davis and Schoorman, 1995; Kim, Ferrin and Rao, 2008).

H1: The perceived image of the destination directly influences trust towards the destination.

In the case of tourist destinations and products in the current context, this security is offered by the adoption of different measures in the establishments and organizations, that are certified with different guarantee brands and emblems.

H2: The guarantee brand directly influences the perceived image of the destination.

The signal theory identifies reputation as a dominant factor to generate trust in organizations (Ganesan, 1994; Allorza, 2011), because reputation is a kind of symbol that gathers, communicates and identifies the attributes of a tourist destination (Matos and San Martín, 2007).

H3: Perceived brand reputation directly influences consumer trust in the destination.

On the other hand, understanding reputation as a dimension that is built from within an organization, and image as a dimension that is built from the customer's perception, some authors have established the link between reputation and image (Ganesan, 1994; Whetten and Mackey, 2002; Balmer and Greyser, 2006).

H4: Perceived brand reputation has a direct effect on the perceived image of the destination.

According to the commitment–trust theory (Morgan and Hunt, 1994), commitment and trust are two elements in the generation of exchanges. Thus, trust is considered as a variable that helps the consumer to discriminate between alternatives when making a decision (Selnes, 1998; Hess and Story, 2005).

H5: Consumer trust in a tourist destination directly influences the purchase intention (visiting the destination).

In a relationship marketing framework, the generation of trust will help to determine the commitment of the relationship (Achrol, 1991), to

maintain lasting relationships and, therefore, repeat purchases. Thus, trust becomes an antecedent of loyalty (Parasuraman, Zeithalm and Berry, 1985).

H6: Consumer trust in a tourist destination directly influences loyalty to the destination.

On the other hand, loyalty to the tourist destination results in greater purchase intention (Múgica, Yagüe and Berné, 1996).

H7: Loyalty to the destination directly influences the purchase intention (of visiting the destination).

Brands play an increasingly important role in the consumer purchasing decision since tourists are able to visualize and understand the intangible products on offer through the brand (Berry, 2000). In this sense, as safer the tourism brand is perceived, more options to be chosen.

H8: The perceived reputation of the brand directly influences the purchase intention (visiting the destination).

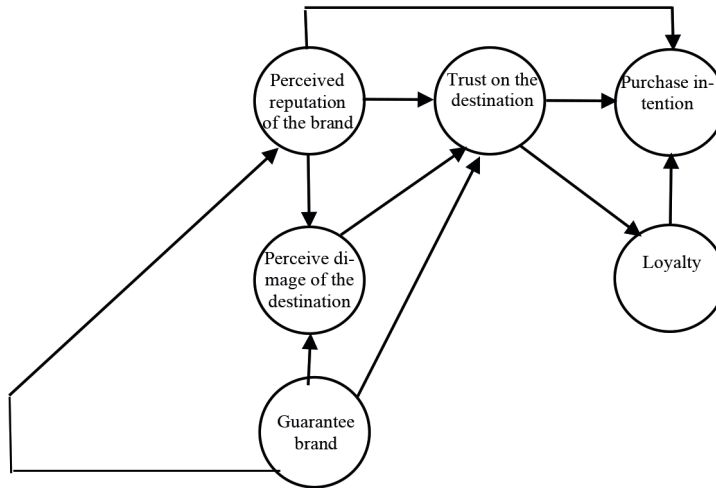
The guarantee brand is a distinctive brand that adds value to the product, in this sense it is used to reinforce the security and confidence of the client, and to strengthen the idea that the organization complies with certain standards. This contribution at the reputational level in the security perception will contribute to the recovery of trust (Khazai, Mahdavian and Platt, 2018).

H9: The guarantee brand in the destination has a direct effect on the perceived brand reputation.

H10: The guarantee brand has a direct effect on consumer trust in the destination.

Based on this theoretical background, the following theoretical model is proposed.

Figure 1. Proposal of theoretical model. SOURCE: own elaboration.



3. Methodology

In order to contrast the previously stated objectives, a quantitative research through a survey is carried out to get primary information from visitors, with the final aim of analyzing the perception of guarantee brands by consumers, as well as the influence of those brands on the perceived image of destinations and its influence on the intention to visit.

The structural equation model used to verify the theoretical model proposed was estimated using the software SmartPLS.

4. Findings

The analysis of the elements that can generate trust in the tourist consumer is pointed out as the main contribution of this work. In this sense, we analyze the influence of the guarantee mark “Safe Tourism Certified”.

In the marketing literature, this research contributes to the integration in a single model of different variables that had been previously studied to generate trust, as well as the incorporation of the guarantee brand variable.

5. Conclusions

The results of this research provide a series of recommendations and implications for tourism organizations, which are in a critical situation due to the COVID-19 pandemic.

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BIG DATA ANALYTICS FOR SMART HEALTHCARE MANAGEMENT

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KEYWORDS: Healthcare Management, Healthcare Organization, Managerial Perspective, Big Data Analytics.

1. Objectives

Big data analytics (BDA) is becoming a key factor in the management of healthcare organizations. Thanks to big data approach, the world of healthcare is going towards a radical change (Wang and Alexander, 2015; Aceto *et al.*, 2020) and BDA inevitably is catalyzing the interest of stakeholders (Galetsi *et al.*, 2019).

The decision makers will be more and more supported by BDA technologies which are experiencing a flourishing development in the healthcare context (Raghupati and Raghupati, 2014).

Cisco and other internet providers have quantified the digital traffic as more than 44 zettabytes. According to the Italian economics journal “il-Sole24Ore”, the daily data production generated by 2025 might touch about 460 exabytes. This ocean of data, collected by multiple sources as wearable devices (Ali *et al.*, 2021), processed through system of artificial intelligence (AI) and IoT technologies (Chung and Park, 2019), already support physicians, caregivers (Yousefi *et al.*, 2020) and healthcare managers involved in the decisional processes.

The big data applied to healthcare represents a market that will rapidly rise in the next future. Touching \$70 billion in the next 10 years it offers

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a big opportunity for both the market players and all the persons involved in the healthcare decision-making processes.

The big data analytics tools will revolution the strategies and will have a positive impact on the effectiveness and efficiency of the healthcare organizations (Han *et al.*, 2020). By facilitating the decision-making processes, the BDA will help healthcare managers in rationalizing resources, doctors to detect disease rapidly and take faster therapeutic decisions, hospitals to provide highest quality standard of services.

Even the Big data analytics (BDA) applied on healthcare organization management represents a “work-in-progress” scenario, this abstract aims to provide a brief overview of some important experiences, highlighting potential benefits for the organizations and decision makers involved in healthcare processes.

To investigate the impact of BDA on the healthcare management, a systematic literature review (SLR) has been performed. The SLR has showed a growing research interest towards relationship between BDA and healthcare organization management topics.

The final result is a descriptive analysis which represents the starting point for a deeper content analysis to find out barriers and future opportunities of BDA applied for smart healthcare management.

2. Theoretical Background

Nowadays research is focusing the effort on the impact that BDA has on the healthcare organizations. Several studies have detected how a BDA approach makes easier the process management and helps to optimize the deployed resources.

To show the connection between BDA, benefits gained and value created for the healthcare organizations, Wang and Hajli (2017) proposed a research model starting from the Resource-Based Theory (Barney, 2001) and BDA “capabilities” (BDAC) (Wang and Hajli, 2017).

Some authors define the BDAC as a set of tools, techniques, and processes that make possible process, organize, visualize, and analyse data and provide useful insights to facilitate data-driven planning, decision-making process and executing operational plans (Srinivasan and Swink, 2018).

By translating Srinivasan and Swink's definition, BDAC for the healthcare organization represents the ability to improve the decision-making process by gathering, storing, analysing and processing health data coming from different sources and characterized for a massive volume, variety, and speed (Wang and Byrd, 2017; Wang *et al.*, 2018a, 2019).

By analyzing 109 cases of BDA tools implementation in 63 healthcare organizations Wang and Hajli (2017) have identified specific "path-to-value". These pathways have shown that by implementing certain BDA tools healthcare organizations can get specific benefits by providing significant decisional insights for the healthcare managers. Indeed, by using BDA tools the healthcare decision makers can get faster clinical insights, plan more effective strategy and provide higher quality performance for both organizations and patients as well. To give an example, the Wang and Hajli's research has demonstrated that by implementing BDA tools, quality and accuracy of healthcare decisions are improved. Also, the processing of clinical issues becomes faster and increases the capacity to engage treatments before patients' conditions worsen.

To sum up, by their research Wang and Hajli have provided to healthcare managers a reference model to assess the impact of specific BDA tools implementation. So, to draw the most advantages as possible from BDA it becomes essential facilitate a so named "data culture" and a lifelong training of human resource in use of BDA tools.

Mostly considering strategic point of view, Wang, Kung, and Byrd (2018) have analyzed 26 case studies of BDA applications in healthcare. The study identifies specific benefits and also directs the managers to precise BDA strategies (Wang *et al.*, 2018). For example, the definition of key performance indicators (KPIs) should be the starting point for healthcare managers oriented to BDA driven process management strategies.

Yu *et al.* (2021) turn the emphasis to the healthcare supply chain management. By interviewing senior executives in Chinese hospitals have demonstrated that BDAC impact, positively, on the hospital supply chain integration (SCI) (Yu *et al.*, 2021).

For example, Chinese healthcare authority by tracking people's movements during the lockdown caused by the Coronavirus, have been able to understand the health trends and optimize the management of pharmaceutical supplies (Liu, 2020; Ting *et al.*, 2020).

Intel and Assistance Publique–Hôpitaux de Paris (AP–HP) have developed a cloud-based solution to predict the number of patient visits to emergency rooms (ER) and hospital admissions. This analytics tool allows to know number of ER visits and hospital admissions at 15 days. This has made possible reducing waiting times, optimizing human resource (HR) on the ward, planning patient loads, and in general improving the quality of services provided (Ambert et al., 2016).

3. Methodology

The present abstract aims to draw a descriptive analysis about the BDA strategies implemented in healthcare organizations and their impact in terms of decision-making management and services provided. To achieve this goal a Systematic Literature Review (SLR) was performed by using specific inclusion and exclusion criteria.

As scientific database Scopus has been used. To get an international validity, only English studies have been considered. The following keywords linked by the Boolean operator “AND” have been selected: “big data analytics” AND “healthcare organization” AND “management”. Only papers published from 2016 to 2021 have been included coming exclusive from “medicine” and “business, management and accounting” subject areas. Conference proceedings and document types as: “article in press”, “review”, “book”, “conference review”, “letter” and “note” have been excluded. The final result has provided 34 items which drawn the framework for the descriptive analysis proposed.

4. Findings

The SLR has shown an increasing of publications between 2017 to 2019. This outcome confirms the hypothesis of a rampant interest of the research for BDA implemented at healthcare process management.

With about thirtyfive percent of scientific paper, the studies see India, UK and USA as prolific research producers. China and India jointly con-

tribute with 22% of the academic articles. The European countries represents an important slice of the scientific production. Indeed, UK, Greece, Italy, Spain, Germany and Portugal contribute with almost 40% of the studies published, testifying Europe as pioneering country in BDA research applied in healthcare. All the other countries contributing marginally to research and do not make critical mass.

The descriptive analytics reveals how BDA is becoming a milestone for managerial studies applied to healthcare organizations. Be also thought that the COVID-19 pandemic outbreak has successfully tested the BDA skills to plan healthcare policy strategies.

To conclude, the results obtained by the SLR show that BDA is a useful support for healthcare managers to design new strategy and turn the ocean of “big data” in usable insights for the decision-making process.

5. Conclusions

The presented abstract aims to open a fruitful discussion on the big data analytics solutions and their key role for managerial studies applied to healthcare organizations.

However, in order to fully exploit the BDA “capabilities” in healthcare, the research should be focused both on standardising the protocol in data analysis and on devices integration. Moreover, the organizations must be responsible for internally facilitating the “data culture” and a lifelong training of human resource in use of BDA tools.

The limitation of this work are different. Only papers published from 2016 to 2021 excluding conference proceedings and documents types as article in press, review, book, conference review, letter and note have been included. Moreover, the point of view has been mostly focused on medicine and business, management and accounting subject areas. Due to the interdisciplinarity issue, the inclusion of “decision science” and “social science” as subject areas could contribute to get a wider point of view. Thus, this study could represent a good starting point in order to develop the state of the art of the topic.

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MODELING AND FORECASTING STOCK PRICE MOVEMENTS

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ALEKSANDAR NAUMOVSKI² AND IGOR IVANOVSKI²

KEYWORDS: Stock Market, Forecasting, Quantitative Methods, Moving Average, Simulation Modeling.

1. Objectives

The subject of this research is to investigate which quantitative methods and techniques are most commonly used to forecast stock price movements, as well as the factors that influence the price formation of shares on the Macedonian Stock Exchange. The objective of this study is to create a quantitative analysis model that can forecast the movements of stock prices on the Macedonian Stock Exchange.

2. Theoretical Background

Many domestic and foreign authors are drawn to the capital market's dynamism and changes, as well as the urge to benefit from stock trading. Several stock price forecasting surveys have been done around the world, and several forecasting models have been established. Artificial intelligence is becoming increasingly important in doing research as we move

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into the digital age. As a result, Sadia *et al.* (2019) can be considered a very important work, in which artificial intelligence allows the system to learn and improve from past experiences without reprogramming.

The forecast should be consistent, accurate, and efficient. In stock price forecasting, Kim and Kim (2019) establish a new model based on the fusing of a short-term memory neural network that goes beyond single models. Petrova (2015) focuses on stock market analysis and forecasting in the Republic of North Macedonia, and outlines three main valuation methods (discount discount, comparison of stock market coefficients and net profit after action and discount cash flow). Momirovski (2014) uses a more in-depth technical analysis to forecast the stock price. He forecasts the price of shares in North Macedonia using the relatively new online service “Best Net Analytica.” Apart from these two references, there are no official sources of theoretical knowledge and research in the domestic literature that allude to the use of simulation modeling for the investigation of a specific phenomenon. As a result, we can underline the originality of this paper, because it will be the first in our nation to construct a simulation model to forecast the future price movement of shares on the Macedonian Stock Exchange. The research’s findings will provide significant information to investors in North Macedonia’s capital market.

3. Methodology

A combined methodological approach is used, which is adapted to the objective’s goal. Historical method, synthesis and analysis method, descriptive method, comparative analysis method, generalization and specialization method, as well as induction and deduction methods are used as general and special scientific approaches. The survey approach was employed in the application section to conduct the empirical investigation. The developed model was solved using the moving average approach (Brockwell and Davis, 2016) and the simulation method (Anderson *et al.*, 2015).

A computer-based approach was used to construct a model for predicting stock price changes. A Palisade tool, @Risk is a Microsoft

Excel add-on that was used to solve the simulation model. The shares of Komercijalna Banka AD Skopje, which are now the most traded on the stock exchange, were used to construct a model for anticipating the movement of stock prices. The monthly share prices of Komercijalna Banka AD Skopje are used as input in the model over the last five years.

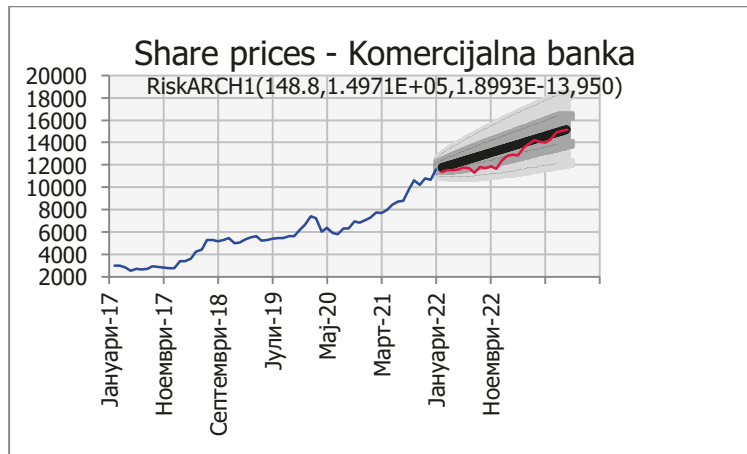
4. Findings

As a first step, we used the Palisade time series tool to forecast the stock price for the year 2022 on a monthly basis. For January 2022, the expected price for Komercijalna Banka shares is 11749 macedonian denars, for February 2022, the estimated price is 11898 macedonian denars, and so on (Table no. 1). The results of this prognosis are visually depicted in Chart 1. With a probability of 5–95% and 25–75%, we can also see the maximum and lower bounds of price movement.

Table 1. Komercijalna Banka AD Skopje share prices forecasted for 2022. SOURCE: own calculation according to data from <https://www.mse.mk/mk/issuer/komercijalna-banka-ad-skopje> (November 25th 2021).

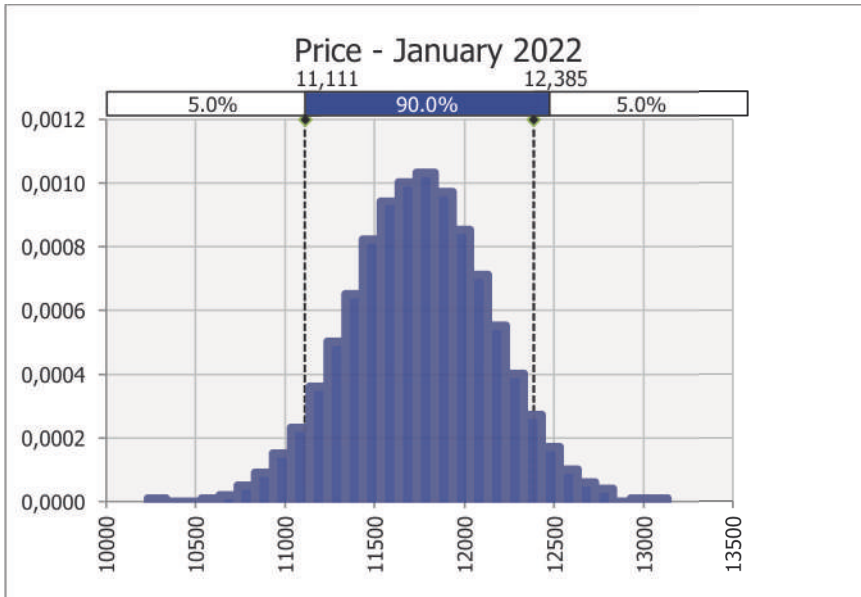
No.	Date	Price
61	22-Jan	11,749.00 ден
62	22-Feb	11,898.00
63	22-Mar	12,046.00
64	22-Apr	12,195.00
65	22-May	12,344.00
66	22-Jun	12,493.00
67	22-Jul	12,642.00
68	22-Aug	12,790.00
69	22-Sep	12,939.00
70	22-Oct	13,088.00
71	22-Nov	13,237.00
72	22-Dec	13,386.00 ден
Column Sparkline		
Min		11,749.00 ден
Max		13,386.00 ден
Average		12,567.25 ден

Figure 1 Graphic presentation of forecasted stock prices of Komercijalna Banka AD Skopje. SOURCE: own calculation according to data from <https://www.mse.mk/mk/issuer/komercijalna-banka-ad-skopje> (November 25th 2021).



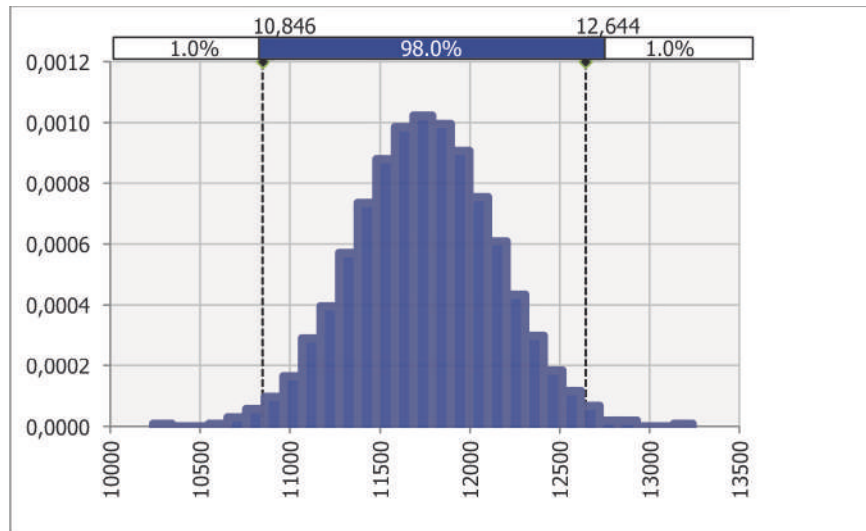
A simulation of each of the results presented in Table 1 for each month was also undertaken for a more complete examination and improved reliability of the results. To do so, we chose the anticipated price for January 2022 and used the simulation tool to run 1000 simulations of the Komercijalna Banka share price in January, yielding the results given in Chart 2. We can see from Chart 2 that the share price in January 2022 will most likely be in the range of 11111 to 12385 denars. With a 5% probability, we can predict that the price will be below 11111 denars, or, in a more optimistic scenario, we can say that the share price of Komercijalna Banka for January will be greater than 12385 denars.

Figure 2 Forecasted share price of Komercijalna Banka AD Skopje for January 2022 with 90% certainty. SOURCE: own calculation according to data from <https://www.mse.mk/mk/issuer/komercijalna-banka-ad-skopje> (November 25th 2021).



If we're not feeling so optimistic, we can look at the outcomes of Chart 3, which employs a greater level of probability. There is a 98 percent chance that the share price of Komercijalna Banka will be between 10846 and 12644 denars in January 2022. By adjusting the dashed lines in charts 2 and 3, we may change the procedure and receive various answers for varying levels of certainty.

Figure 3 Forecasted share price of Komercijalna Banka AD Skopje for January 2022 with 98% certainty. SOURCE: own calculation according to data from <https://www.mse.mk/mk/issuer/komercijalna-banka-ad-skopje> (November 25th 2021).



5. Conclusions

A simulation model for forecasting the future share price of Komercijalna Banka AD Skopje is developed in this study. The Palisade software package was used to do the analysis. Based on the findings, it is projected that the share price of Komercijalna Banka will rise slightly over the next year, with a price range of 10873 to 15539 denars with a 90% probability. These findings are critical for all present and future investors to better understand their earning potential and risk exposure. In the future, we want to study the stock values of the most traded securities on the Macedonian stock market over a significantly longer period of time and apply a machine learning algorithm to predict them.

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BIBLIOMETRIC ANALYSIS IN BANKING ON WOMEN AND CORPORATE GOVERNANCE

EVICA DELOVA JOLEVSKA¹ AND VIOLETA CVETKOSKA²

KEYWORDS: Bibliometric Analysis, Text Mining, Banking, Corporate Governance, Women.

1. Objectives

The objective of this study is to investigate the impact of women on corporate governance in the banking industry by providing a bibliometric analysis of articles in the Web of Science (WoS) database. In addition, we present the distribution of papers by year, by publisher, by WoS category, top authors based on citations, and the 5 most cited articles. Despite this, by using text mining in the abstracts, we present the research hotspots in the last five years.

2. Theoretical Background

The most important resource of each organization (profit as well as non-profit) is intellectual capital. The fact is that, at the global level, organizations are dominantly led by men. BoardEx (2021, February 16) analyzes more than 16,000 directors from more than 1,400 different organizations and found that only in 4.4% of organizations there is

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more than 50% female presence on boards. The top place belongs to France, with 44% of female representation on boards, followed by Norway (40%), then Sweden, Italy, and Finland (each with 37%), etc. In the United States, significant progress has been made since the first research of this type in 2014, with 29 percent female representation on boards in 2021 (increased by 10 percentage points compared to 2014).

Only 27.8% of board members from Europe's largest publicly traded corporations are women as of April 2019 (Gender balance in decision-making, n.d.). Traditional gender roles and stereotypes, a lack of support for women and men balancing childcare and work, and prevailing political and corporate culture are the main culprits (Gender balance in decision-making, n.d.).

Because the stability of the banking system in one country depends on the performance of its players, i.e., banks, which are key players especially in less developed countries, we focus on an investigation of the existing literature on the impact of women on corporate governance in banking.

3. Methodology

We found 33 articles by searching the WoS database on March 7 in the topics (title, abstract, keywords, and keywords plus) "corporate governance," "banking," and "women," and using only articles as the document type and the entire time period (except 2022). By reading the abstracts, we have realized that six are not adequate, and the sample for analysis consists of 27 articles. Despite the data visualization on the distribution of papers by year, by publisher, top authors based on citations and the 5 most cited articles, the research hotspots are identified by using text mining from the software VOSviewer, using the last version 1.6.18, released on January 24, 2022. This software was applied to 515 publications for bibliometric analysis from 2006 until March 4, 2022, based on our analysis on its website. Details of the software can be found in van Eck and Waltman (2010).

4. Findings

In the analyzed period from 2007 to 2021, the highest number of articles was published in 2018 (6 articles). In the last 5 years, 19 articles (70.4%) have been published, which implies that the interest in this topic is increasing. There are a total of 11 publishers, with Emerald Group Publishing LTD publishing the most papers (8), followed by Elsevier (4 articles), MDPI, Springer, and Wiley (each with 3 articles), and so on (Figure 1).

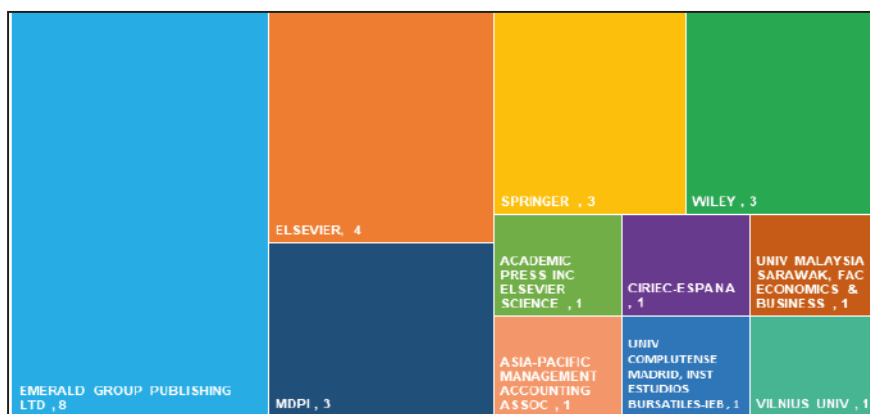


Figure 1. Number of articles per publisher. SOURCE: Authors.

There are 11 WoS categories where the articles belong, so the highest number of articles is in business and finance (7 articles), followed by business (5 articles) and economics (3 articles), etc. There are 25 different journals, so in *Corporate Governance (The International Journal of Business in Society)* and Sustainability, 2 articles are published, respectively. The total number of different authors is 58, while the average number of authors per paper is 3. In Figure 2 are presented the most cited authors (with citations of over 50). Based on Figure 2, we can see that Berger, A.N., Kick, T., and Schaeck, K. are the three most cited authors (each with 245 citations).

No.	Author	Times Cited, All Databases
1	Berger, AN	245
2	Kick, T	245
3	Schaeck, K	245
4	Khan, MHUZ	221
5	Barako, DG	195
6	Brown, AM	195
7	Palvia, A	124
8	Vahamaa, E	124
9	Vahamaa, S	124
10	Garcia-Sanchez, IM	65
11	Martinez-Ferrero, J	65
12	Garcia-Meca, E	58

Figure 2. Most cited authors. SOURCE: Authors.

The five most cited articles are presented in Figure 3. The most cited article (225 citations) is “Executive board composition and bank risk taking” by the three most cited authors, published in the *Journal of Corporate Finance* in 2014.

Article Title	Source Title	Authors	Publication Year	Times Cited, All Databases
Executive board composition and bank risk taking	<i>JOURNAL OF CORPORATE FINANCE</i>	Berger, AN; Kick, T; Schaeck, K	2014	225
The effect of corporate governance elements on corporate social responsibility (CSR) reporting: Empirical evidence from private commercial banks of Bangladesh	<i>INTERNATIONAL JOURNAL OF LAW AND MANAGEMENT</i>	Khan, MHUZ	2010	221
Corporate social reporting and board representation: evidence from the Kenyan banking	<i>JOURNAL OF MANAGEMENT & GOVERNANCE</i>	Barako, DG; Brown, AM	2008	195
Are Female CEOs and Chairwomen More Conservative and Risk Averse? Evidence from the Banking Industry During the Financial Crisis	<i>JOURNAL OF BUSINESS ETHICS</i>	Palvia, A; Vahamaa, E; Vahamaa, S	2015	124
Composition and Activity of the Board of Directors: Impact on ESG Performance in the Banking System	<i>SUSTAINABILITY</i>	Birindelli, G; Dell'Atti, S; Iannuzzi, AP; Savioli, M	2018	42

Figure 3. The five most cited articles. SOURCE: Authors.

Based on the analysed studies, we provide some of the findings.

No impact:

- There is no significant relationship between women's presence on boards and corporate social reporting (CSR) (Khan, 2010);
- The proportion of women on Sharia Supervisory Boards has no impact on Islamic banks' financial performance (Baklouti, 2020);
- The presence of women directors has negligible effect on environmental performance scores (Gallego-Sosa *et al.*, 2020).

Negative impact:

- Portfolio risk is increased by board changes that result in a higher share of women executives (Berger *et al.*, 2014);
- Women on the board of directors have an inverted U-shape association with the banks' ESG performance (Birindelli *et al.*, 2018);
- The presence of women on boards has a negative and significant impact on credit risk (Lu and Boateng, 2018);
- The presence of women at alternative management levels, taking into account chairman, executive, and total female directors in the boardroom, has a negative impact on firm accounting and market-based performance (Tran *et al.*, 2021).

Positive impact:

- Between the women's representation on board and the amount of CSR information revealed in a bank's annual report, there is a significant and positive association (Barako and Brown, 2008);
- There is a strong evidence that during the financial crisis, smaller banks with female CEOs and board chairmen were less likely to fail (Palvia *et al.*, 2015);
- Women on boards have a positive impact on accounting conservatism and profits quality in banks due to their monitoring role (Garcia-Sanchez *et al.*, 2017);

- The presence of a higher proportion of women on credit union boards helped positively to improve their rentability over assets (RoA) by increasing rentability over equity (RoE) and firm leverage (Palomo–Zurdo *et al.*, 2017);
- Gender diversity (as assessed by the number of female directors on boards) is associated to bank profitability (ROAE) positively and statistically significant; Female directors' positions are not neutral, and executive and independent female directors have a positive impact on bank performance (Mazzotta and Ferraro, 2020). Also, Othmani (2021) found a direct relationship between gender diversity and bank performance (as assessed by ROA and ROE).

In the last 5 years, 20 papers have been published whose abstracts are used to identify research hotspots with text mining. Using the VOSviewer software, we found 671 terms (key words), and we have set the minimum number of occurrences of a term to be 2, so that 120 satisfy this threshold. Then, the software selects by default the 60% most relevant of them, so that 72 key words remain. In addition, we have excluded 19 key words that are not relevant, such as: empirical study, further analysis, previous study, practical implications, etc., and the network visualization is created with 53 key words (Figure 4). The network visualization is made up of labels and circles that represent items, as well as lines that show links between them. The larger the label and circle, the greater the item's weight, and the shorter the distance between the two items, the stronger the relationship (Cvetkoska and Savic, 2021). The keywords are categorized into 5 clusters, so that items with the same colors imply that they belong to the same cluster. The item value has the highest weight, followed by crisis, asset, equity, etc.

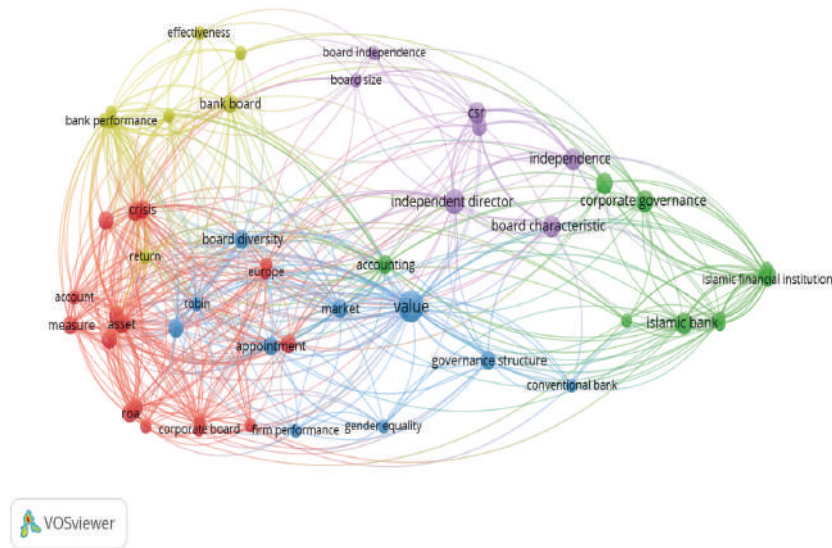


Figure 4. Network visualization for keywords co-occurrence (2017–2021). SOURCE: Authors.

5. Conclusions

Based on a search in the WoS database for the terms “corporate governance,” “banking,” and “woman,” we present the first bibliometric analysis in this field for articles published between 2007 and 2021. We found that most articles were published in 2018. The Emerald Publishing Group LTD has published the highest number of articles (8). The three top authors based on citations (245 citations each) are Berger, A.N., Kick, T., and Schaeck, and the most cited article (225 citations) was “Executive Board Composition and Bank Risk Taking” by the three most cited authors, published in the *Journal of Corporate Finance* in 2014. Despite this, by using text mining in the abstracts, we present a network co-occurrence map and identify the research hotspots in the last five years. Also, we provide some findings that confirm the positive impact of women on boards on the amount of CSR information revealed in a bank’s annual report, on accounting conservatism and profit

quality in banks, improving rentability over assets, bank performance, etc. We believe that expertise and experience are essential for making critical (final) corporate decisions, and we aim for worldwide gender equality.

We have not found a study that examines the proportion of women on banking boards in Central and Eastern Europe (with an emphasis on the Balkans) and their impact on banking performance in the available literature. As a result, we want to perform such research and provide insights and recommendations to governments, shareholders, and banks boards.

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WHAT SKILLS SHOULD A MANAGEMENT SCIENTIST CONSULTANT POSSESS?

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KEYWORDS: Management Science, MCDM, AHP, Consultant, Skills.

1. Objectives

We live in a world that is becoming more dynamic and complex, and management in companies is faced with a number of challenges related to increased competition, customers that want high quality but are willing to pay as low a price as possible, limited resources, time pressures, rapid changes in technology, recovery from the pandemic COVID-19, and the current war in Ukraine. With the decisions they make, they are responsible for the results the company achieves both in the short and the long term. The change in the nature of the problems and challenges they face also means a change in the nature of the role of those who advise management in the direction of making better decisions.

At the heart of the discipline of operational research (OR) / management science (MS), also known as the science of better, is data. Using analytical methodologies and tools to gain deeper insights from data can lead to recommendations for management to make fact-based and faster decisions.

Multi-criteria decision-making (MCDM) is one of the most important and fastest growing fields in MS. It refers to making a decision when there are several criteria that most often conflict with each other. Koksalan, Wallenius, and Stanley (2011) gave a detailed review of MCDM from its

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early history up to the present. A literature review on MCDM techniques and their applications was conducted by Mardani *et al.* (2015), who found that the most used (in 128 papers) MCDM method is the analytic hierarchy process (AHP). In addition, Emrouznejad and Marra (2017) show that in the period 2013–2015, more than 800 AHP published works have been identified.

When from several alternatives, there needs to be a choice of one that is the best, or to rank alternatives, taking into account several criteria on the basis of which the alternatives are evaluated, AHP can be applied.

The objective of this study is to investigate how much the MS methods and models are used in private and state companies in North Macedonia and to develop an AHP model that will help the management when selecting an MS consultant based on the required skills.

2. Theoretical Background

The skills (fundamental and ancillary practical) that an MS consultant should have are provided by Williams (2008: 227–246).

The fundamental skills of an MS consultant are: being able to look at the problem, being able to relate to the client, comprehending the social geography of the client body, identifying opportunities for analysis in a creative manner, structuring the problem, modeling it, analyzing the developed model, and relating the results to the real situation (Williams, 2008: 226).

Ancillary practical skills are grouped into five fields: 1) marketing, 2) selling, 3) formal communication and reporting, 4) skills in interacting with the client, and 5) computing. In the field of marketing, the MS consultant needs to be a marketer (to be able to look at the needs and wants of possible clients and consider which way is best to meet their needs and wants). In addition, the MS consultant needs to be a seller (where interpersonal skills, analytical skills, and knowledge are considered).

Interpersonal skills are related to active listening and empathizing with the client (to be able to see the situation as the client, question in a way that is structured and analytic and to demonstrate insight). Analytical skills are linked with the ability to conceptualize situations and to identify problem areas that are of key importance. The MS consultant needs to have

knowledge of the way that business operates, domain knowledge of the problem area, and different analytical approaches. Formal communication and reporting are linked with the style of written communications, presentations, and visualization of information through figures, diagrams, charts, timetables, etc.). In the field of interacting with the client and facilitation, the skills are: being personable, friendly, energetic, showing enthusiasm, trust and credibility as the basis of the relationship with the client, and having the necessary skills to hold workshops with a group of clients (to “facilitate” workshops) and to gain information or data from them. Last but not least, is the field of computing, which consists of the following skills: the ability to pick up new software packages in a quick manner, the ability to collect data from a variety of information systems, the ability to be a programmer, and the ability to be a software engineer.

The process of selection of a management science consultant can be considered an MCDM problem that can be decomposed into the following elements: goal, criteria, and alternatives. In order to determine the importance of individual elements that are mainly of qualitative nature, AHP was chosen as the most appropriate method. In the existing literature, we have not found a similar reference, which leads to the conclusion that this is an original application of AHP by which we contribute to the MS and MCDM literature.

3. Methodology

The survey was carried out through a questionnaire on senior managers of private and state companies in North Macedonia and the period was one month (February) in 2018. The respondents needed to evaluate each fundamental and ancillary practical skill on a discrete scale (1 to 5, where 1 is the lowest grade of importance, and 5 the highest). Besides the listed skills, if according to the respondents, an important skill is not included in any category, they need to add it and evaluate it. The total number of received questionnaires is 236. Of these, 17 are incomplete and 219 are analyzed. Out of these 219, 68 are from the state, and 151 from private organizations.

Based on the estimated average grades of importance for fundamental and ancillary practical skills, those with an average grade of equal or higher than 4 will serve as an input for the AHP criteria hierarchy.

The AHP was developed by Thomas L. Saaty in the late seventies of the twentieth century (Saaty, 1977; 1980). The decision-making process with the AHP consists of six steps (Mu and Pereyra-Rojas, 2017:7–8): 1) Create a decision hierarchy; 2) Determine the weights for the criteria; 3) Determine the local priorities for the alternatives; 4) Determine the overall priorities; 5) Conduct a sensitivity analysis; and 6) Make a decision. Details for each step can be found in Cvetkoska (2022: 243–269).

4. Findings

Methods and models of management science are used in 33 companies (25 private and 8 state). The MS model has been developed and solved with the help of an analyst employed in the organization (24 respondents), an MS consultant (5 respondents), and both (4 respondents). A total of 151 organizations responded that they require MS help and intend to hire an MS consultant in the future.

In Figure 1, we present the average grade of importance for the 8 fundamental skills. Based on the results, we can see that the highest grade has the skill to be able to look at the problem, while the lowest grade has the skill to comprehend the social geography of the client body, which is less than four, and therefore this skill will not be part of the AHP model.

The elements of the AHP model for the selection of the most appropriate MS consultant by the management of the companies in the Republic of North Macedonia are presented in Figure 2. As we can see from Figure 2, the goal is to select the most appropriate MS consultant. We have provided two categories: fundamental and ancillary practical skills. In the first category, there are seven criteria, while in the second category, the criteria are grouped into the following five groups: marketing, selling, formal communication and reporting, interacting with the client, and computing, while as alternatives will serve the candidates that apply as MS consultants.

No.	Fundamental skill	Average grade of importance
1	to be able to look at the problem	4.81
2	to relate the results to the real situation	4.77
3	to structure a problem	4.59
4	to analyze the model	4.53
5	to relate to the client	4.40
6	to model the problem	4.35
7	to creatively identify opportunities for analysis	4.26
8	to comprehend the social geography of the client body	3.84

Figure 1 The results of the survey: the importance of fundamental skills. SOURCE: The authors.

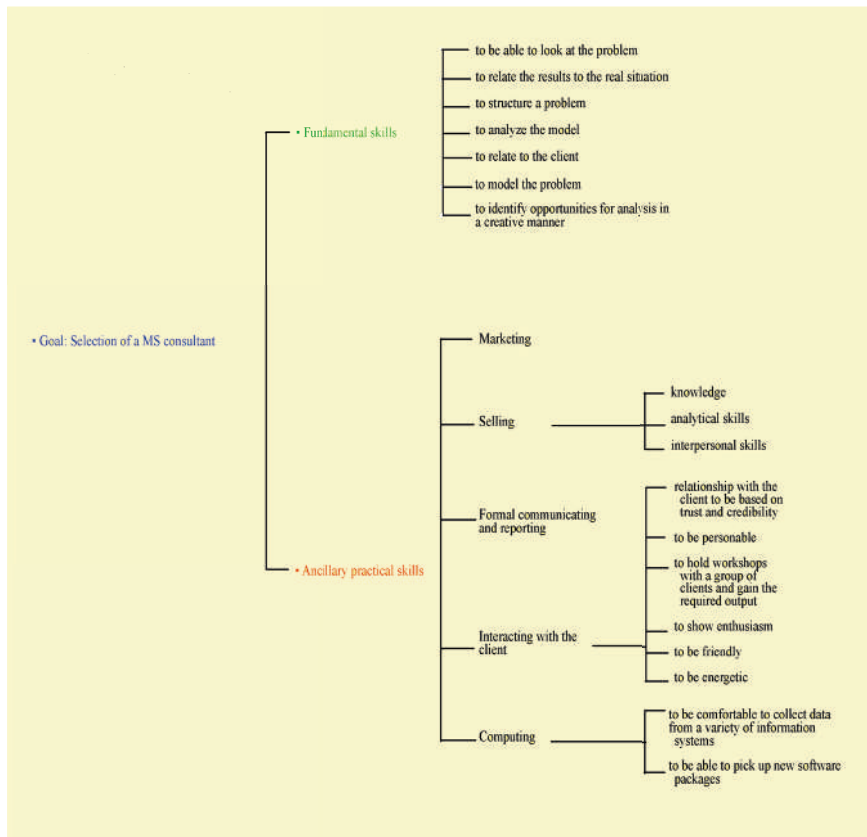


Figure 2 The AHP hierarchy for selecting an MS consultant. SOURCE: The authors.

5. Conclusions

Through the research performed on senior managers of state and private companies in the Republic of North Macedonia, it can be concluded that only 15% of the analyzed companies are using the MS methods and techniques. This poor usage is attributable to a lack of understanding about MS analytical methodologies and tools, as well as the benefits of using them.

Most of the respondents (151) answered that they need MS support and that they plan to engage an MS consultant in the future. Based on the questionnaire results, those fundamental and ancillary practical skills with an average grade of importance greater than four are used as input for mathematical, i.e., multi-criteria modeling. We believe that this modeling will contribute significantly to the selection of the most appropriate MS consultants in the companies, and the proposed AHP model will be tested in both private and state companies in the country.

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PROPOSAL OF A FRAMEWORK TO ANALYZE THE MECHANISM OF DYNAMIC CAPACITIES IN A PUBLIC ORGANIZATION

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KEYWORDS: Dynamic Capacities, Public Organizations, Management, Organization, COVID-19.

1. Objectives

Propose a theoretical framework to analyze the relationship between dynamic capabilities and performance in a Peruvian public organization. Specifically, to understand how dynamic capabilities are generated, their relationship to performance, and how it is affected by the level of publicity and the level of environmental turbulence.

2. Theoretical Background

According to Mazzucato (2020), the pandemic caused by COVID-19 has shown us that the capacities of governments are essential and critical. During the crisis and in the reconstruction of society, capacities such as adapting and learning are crucial; the ability to align public services and citizen needs the ability to govern resilient production systems, among others.

From a more dynamic version of the Resource-Based View-RBV, focused on the impact of rapid and unpredictable external and internal changes that many organizations experience (Teece *et al.*, 1997), the “dynamic capabilities” approach is born. Dynamic capabilities are defined

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as “organizational and strategic routines by which companies achieve new configurations of resources” (p. 1106). The theoretical framework developed by Teece (2009, 2019) is advantageous because it presents a lens to assess the range of development capabilities in an organization, from strategy to structure. Likewise, the capacities that it proposes are detection (opportunities and threats), exploitation (opportunities, responding to the perception of options and translating them into products and services), and reconfiguration (when necessary, the tangible and intangible assets of the organization).

Dynamic capabilities-based strategic approaches are particularly relevant to the public sector, as they focus on internal resources rather than competitive market behavior and fit well with the volatile environment experienced by many public organizations (Barney, 1991; Bitencourt *et al.*, 2020; Casebeer *et al.*, 2019; Eisenhardt & Martin, 2000; Majanen & Jantunen, 2016; Piening, 2013; Rosenberg Hansen & Ferlie, 2016; Teece, 2009).

3. Methodology

For this study, scientific documents from the last 25 years in the Web of Science and Scopus databases on dynamic capacities and public organizations were analyzed.

4. Findings

Of the 76 selected studies, it is concluded that scientific research is scarce in terms of dynamic capacities in public organizations in Latin America (only two studies are found for Uruguay and Mexico). Various research methods are found, from case analyses to large-scale cross-sectional studies. Quantitative analyses were the most frequent (32). However, qualitative, and mixed studies were also carried out. The public organizations investigated were diverse: hospitals, public companies, municipalities, public universities, university innovation centers, laboratories, public aviation companies, water supply companies, privatization of companies, public transport, superior court of justice, police services, etc.

Dynamic capabilities can help an organization make decisions within the organization and have the potential to improve its organizational performance (Teece, 2009) through the use of internal resources and capabilities as well as through the improvement of the operational capabilities of the organization (Andrews *et al.*, 2015; Barney, 1991; Helfat *et al.*, 2007; Kareem & Alameer, 2019; Klein *et al.*, 2013).

Likewise, dynamic capabilities lead to the reconfiguration of their operational capabilities (Wilden *et al.*, 2016) through the reconfiguration of resources, such as (1) human resources, (2) organizational culture, (3) machines/facilities, (4) structures/routines/processes, (5) R&D – new products/portfolio, and (6) alliances/partnership/network, which are a meta capacity to learn to repeatedly renew the overall capacity of the organization (Narayan *et al.*, 2020). Table 1 exemplifies the relationship between the different resources of an organization and the development of dynamic capabilities.

Furthermore, according to the literature, publicity and environmental turbulence are identified as essential factors that affect the relationship between organizations' dynamic capabilities and performance. Piening (2013, p. 235) and Bozeman (1987, 2007) use the concept of publicity level (classifying how public or private an organization is) and propose that “the greater the degree of publicity, the less likely it is that organizations develop and deploy dynamic capacities”, due to the degree of external political control, the dependence on state financing and the level of state ownership (Maijanen & Jantunen, 2016; Rosenberg Hansen & Ferlie, 2016).

Moreover, environmental turbulence has a double influence on dynamic capacities (Piening, 2011). On the one hand, it is seen as a contingency factor in deploying dynamic capabilities (Eisenhardt and Martin, 2000; Wang and Ahmed, 2007). On the other hand, environmental turbulence in the public sector is assessed along three dimensions: munificence (refers to the availability of resources such as tax and fee revenue in a geographic region or public sector), complexity (describes the homogeneity or heterogeneity of circumstances externalities that a public organization faces), and uncertainty of change; which are contingency factors in the decision to deploy dynamic capabilities and to have better performance in the organization (Eisenhardt and Martin, 2000; Wang and Ahmed, 2007).

Table 1. Resources in the development of dynamic capacities. SOURCE: Own elaboration.

Resource type	dynamic capabilities		
	Detection:	Use:	Reconfiguration:
Human Resources	Learning capacity. The level of professionals employed. (Walker, 2014, p. 33)	Internal knowledge creation capabilities. External knowledge absorption capacity	
Organizational culture	Participation of employees to take advantage of their direct knowledge (Trivellato <i>et al.</i> , 2020)	Stakeholders involved to improve effectiveness. (Trivellato <i>et al.</i> , 2020)	Collaborative attitude during interaction with citizens and collaboration with colleagues due to learning and acquisition of new skills. Changes in internal culture (Lieberherr <i>et al.</i> , 2015)
Machine/facilities/money	Department creation in ID (Lieberherr <i>et al.</i> , 2015)	Capacities to mobilize and leverage financial resources, creation of contingency funds (Hartman <i>et al.</i> , 2017)	New treatment plants (Lieberherr <i>et al.</i> , 2015)
Structures/routines/processes	Basic rules of system operation; channels of interaction with citizens (Trivellato <i>et al.</i> , 2020).	Use of available data and reports on the environment and water management; additional channels of interaction with citizens (Trivellato <i>et al.</i> , 2020)	Formalization of reconfigured processes; implemented training systems; innovative projects implemented (Trivellato <i>et al.</i> , 2020)
R&D – new products / portfolio	Research and development address the needs of consumers, determines the limits and capabilities of new technologies and uses external organizations (Hartman <i>et al.</i> , 2017)	It translates future options into promising innovative products and processes. (Lieberherr and Truffer, 2015, p. 111)	New styles of treatment plants, new business models and strategic planning as reconfiguring capabilities of water systems (Lieberherr and Truffer, 2015).
Alliances / association / net	External interactions with industry competitors, government regulators, chartered institutions, and universities (Lieberherr and Truffer, 2015)		The reconfiguration capacities of the operators in terms of radical innovations remain quite weak due to the current regulatory system (Lieberherr <i>et al.</i> , 2015)

5. Conclusions

It has been identified that there is a research gap in the generation of dynamic capacities in public organizations (Bitencourt *et al.*, 2020; Fukumoto & Bozeman, 2019; Peteraf *et al.*, 2013; Piening, 2013) especially for the case of Latin America.

Likewise, the vital role in the generation of dynamic capacities in the public organization is revealed: the ability to detect, take advantage of, and reconfigure, such as changes in the culture of an organization for the open exchange of ideas within the organization as part of the reconfiguration capabilities.

Therefore, a theoretical framework is proposed to advance the research to analyze the relationships between the dynamic capacities (detection, use, and reconfiguration) and the performance of this public organization. The specific objectives for future research are to: (1) understand the possible existence of relationships between the three dynamic capabilities as a whole and organizational performance; (2) understand how the three dynamic capabilities relate to each other and performance; and (3) analyze the effect of the level of publicity and the turbulent environment on the relationship between the dynamic capacities and the performance of public organizations.

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HOSPITAL CRISIS MANAGEMENT: CAN TRANSFORMATIONAL MANAGEMENT BE THE ANSWER?

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KEYWORDS: Healthcare Organization, Healthcare Management, Crisis Management, Transformational Management, Leadership.

1. Objectives

Recent happenings have demonstrated that crises shall not be considered in the sphere of impossible and that despite rare, they may bring dramatic consequences (Fanelli *et al.*, 2020; Shangguan, 2020). Types of crisis has also increased significantly (Boloran and Hernan, 2020), as has the rate of their geographical spread. This is true of a global financial crisis and a war, as well as a pandemic, and reflects the interconnected nature of world in the third millennium (Lalonde, 2007).

As such, crisis management increased significantly its appearance in the agenda of public managers, and as a major research issue for public administration scholars.

In the year ranging from 2000s, through 2010s and even more in 2020s, authors started seeking for a suitable management model to define a resilient model able to response to critical events (Mintzberg and Laasch, 2020). The objective of this research stream consists studying

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how hospital managers acted out during the COVID-19 pandemic crisis in Italy and sketch few conclusions that may be helpful in determining how to respond to such a threat in the future.

We argue that transformational management, a relatively new concept, may be the answer and we study thus the approach of hospital managers comparing it with the transformational manager traits.

2. Theoretical Background

Crisis management is not a new issue for academic literature; it first appeared in the late 1970s and the 1980s (Lalonde, 2007). Two major strands emerged early on: (1) planning in crisis management and (2) analysis of organizational contingencies during a crisis (Perry and Nigg, 1985; Counts and Prowant, 1994; Denis, 2002).

The literature on planning in crisis management mainly consists of normative contributions aimed at increasing the efficacy of crisis intervention (Lalonde, 2007), using procedures and measures established “*a priori*” (Lalonde, 2007). The goal of crisis management literature is often to encode indications into a sort of “handbook of management”. This approach was largely superseded by the end of the 1990s, and organizations tended to lean more towards analysis of organizational contingencies in crisis. This entails accommodative management, providing for more organizational flexibility, which has a strong impact on processes and requires strong leadership through times of crisis (Hwang and Cameron, 2008). This type of management requires managers to be first of all leaders.

However, public organizations are often reluctant to adopt a more leadership-oriented management approach which goes beyond a bureaucratic model based on responsibilities and hierarchies (Mintzberg and Laasch, 2020), and health organizations are no exception to this (Ray, 2008).

A new theory, based on the concept of transformational management (Lalonde, 2007) evolved throughout the 1990s as a bend of planning in crisis management and analysis of organizational contingencies. It is defined (Ashkanasy and Tse, 2000; Hwang and Cameron, 2008)

as a flexible management model where specific procedures are set out *a priori*, but where a higher degree of organizational flexibility allows for transformation when necessary and where managers can be replaced by leaders when required. It calls for responsible management (Mintzberg and Laasch, 2020), and in fact implies a leader–manager or an individual leader, who can be identified as a positive example within the organization, who gives autonomy to the organization itself and who acts with a general higher grade of flexibility.

This leads to the assumption that for being an effective manager during a crisis, one should also be a leader (Mintzberg and Laasch, 2020), or an individual capable of guiding the organization according to a shared vision. So the real question is what type of leader an organization needs in times of crisis.

It is impossible to draw up an exhaustive list of different types of leadership, but the most frequent classification, used by several authors (Khan *et al.*, 2015; Bowers *et al.*, 2017; Bhaduri, 2019), defines three types of leader: (1) Directive, strong on communication and usually following a simple top–down approach (Khan *et al.*, 2015); (2) Servant, having a desire to serve and help others, focusing on developing people (Bhaduri, 2019); (3) Transformational, a relatively new concept of leadership, detail-oriented, where the leader seeks consensus from everyone sharing his/her own vision in order to provide a big picture of the organization (Bowers *et al.*, 2017). Transformational leadership is widely recognized as the most effective during crisis (Khan *et al.*, 2015; Bowers *et al.*, 2017; Bhaduri, 2019).

This work will attempt to investigate how transformational leadership has been, if it has been, turned into a management style during the COVID–19 first wave crisis in Italy. Indeed, the Italian case may provide useful indications as it was the first western country to be hardly hit by the crisis, and with no previous experience arising from other countries, critical success factors of undertaken actions can be isolated and may be replicated for future events.

3. Methodology

We aim to look at the differences between “during the pandemic emergency” and “after the pandemic emergency”. How experts assess what has been done in terms of management actions?

This study aims to delve more deeply by interviewing experts in the field of health management, leadership and crisis management. A qualitative approach will be followed, using the methodology adopted by Fanelli *et al.* (2020).

A set of interviews was already conducted during the first phase of the national lockdown in Italy (February 2020 – May 2020), while a second tranche of interviews will be conducted in the forthcoming month, when the health care emergency will be over. We then will analyse the differences in types of responses, confronting the same interviewees.

Interview questions were drawn up after an initial literature review, and consisted of five semi-structured questions (Q1–Q5). The first group of questions (Q1–Q3) focus on difficulties that a leader may encounter during a crisis event, and the second group (Q4–Q5) focus on tools to make leadership more efficacious during a crisis.

Q1 – What critical factors were encountered during the emergency in terms of professional coordination?

Q2 – What would the characteristics of a good leader be during an emergency?

Q3 – What tools could be used to improve health care organization leadership during an emergency?

Q4 – How can health organizations be helped to attain sustainable leadership in order to be resilient?

Q5 – How can leaders be helped to pursue sustainable change?.

The interview can be considered as an episodic interview (Cheng *et al.*, 2018), which is a type of interview which focuses on meaningful experiences in relation to the interview topic or other related topics. The main objective of an episodic interview is to describe and interpret a phenomenon on the basis of participant experience (Fanelli *et al.*, 2020). In fact, although our respondents were not in the front line fighting the pandemic, they have expertise in relevant fields, and are

aware of significant episodes and different actions undertaken by health organizations (Della Porta, 2014; Fanelli *et al.*, 2020). They thus have access to a great amount of information and their opinion is not affected by single episodes as they were not directly involved (Carrol, 1994).

This type of interviewee is also termed “privileged observer”, and various studies show privileged observers can provide a wider perspective as they see the same phenomenon from different points of view (Della Porta, 2014).

A total of 42 interviews were carried out in the first tranche of interviews. But only 24 interviewees (57.14% of the original sample) were privileged observers. In the second tranche of interviews we anticipate to recruit the same people who took part in the first tranche.

4. Findings

We aim to look at the differences between “during the pandemic emergency” and “after the pandemic emergency”. How experts assess what has been done in terms of management actions?

The first analysis of the first tranche of interviews allowed the identification of key elements which could serve to improve health organization resilience. The main element is in fact trust in an organization and its leadership, which can make organizations themselves more flexible in responding to external and internal requirements. The second element is that strong leadership is the way to reach higher levels of organizational flexibility and autonomy.

The third element consists in the idea that management shall count of professionals’ sentiment towards what they are doing. Therefore, communication shall be an asset to be exploited as much as possible.

To sum up, when a complex organization faces a crisis event, as when a hospital faces a pandemic, first evidence suggests that a strong leadership is required, and delegation is necessary to achieve strong leadership. Delegation, however, can weaken the efficacy of actions un-

dertaken if it takes place without coordination, and effective coordination between professionals requires the leader to be able to effectively communicate a shared vision.

Second tranche of interviews may or may not confirm these results.

5. Conclusions

Conclusions of this study are yet to be defined and will be based on the analysis of the second tranche of responses. However, few first ideas can be sketched.

First of all, management and leadership are two separate concepts that shall not be confused. When a crisis happens a manager shall be also a leader to successfully find an exit strategy, but during non-crisis period this approach can be risky as it does not take into consideration many aspects that characterize public organizations.

Secondly, as mentioned, crisis do not occur overnight. There are always signs that needs to be interpreted. As such, crisis management shall increasingly appear in the agenda of management education.

Furthermore, strong model of coordination between all staff shall be developed in non-crisis time to be applied when the crisis occurs.

What have we learnt from the management of the COVID-19 pandemic crisis shall not be forgotten and considering this experience we shall start now to design resilient models that will allow us to not be caught unprepared in the future.

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PARTICIPATORY PUBLIC GOVERNANCE IN LOCAL SETTINGS: COMPARING DIGITAL CIVIC ENGAGEMENT INITIATIVES

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KEYWORDS: Transparency, Citizens' Participation, Civic Hacking.

1. Objectives

The paper sheds light on the new concept of “civic hacking” in a context where governments have to rethink about their relationships with citizens, stimulating their participation. The aim is to show how digitalization can help the public sector to co-create new public value through citizens' participation.

With the spread of digital technologies any information is available and people want to know more about the public administration's activities, they want to communicate with their leaders, and to be involved in decision making processes. In this context, an interesting aspect can be represented by civic hacking, a sort of “innovation without permission”, able to ensure citizens engagement and the effectiveness of open government practices within society.

The paper will be structured as follows: first of all, we will try to define the concept of civic hacking, then we will investigate how the phenomenon has spread in the Italian context, in order to define the state of the art of civic hacking in the national level. At the end, we will interpret data in a qualitative method, making considerations in terms of future perspectives.

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2. Theoretical Background

In a context where technology has assumed a central role in people's life, public–private relationships must be based on the exploitation of Information and Communication Technologies, with the aim to leave hierarchy and bureaucracy favoring innovative bottom up logics (Eggers, 2005). It is in this sense that digital innovation, especially e-government and open government strategies intervene as new opportunities for public administrations that are looking for a new model in order to ensure transparency for users, to reduce waste and to improve their accountability.

Public administration has started to share data and several citizens have started to exploit these data in order to improve the civic life for all, even without a specific permission. In this sense, first in the United States and then in the rest of the world (including Italy) the new concept of civic hacking appeared. Civic hacking can be seen as the set of practices and tools through which individuals, seen as “good hackers”, aim to enter protected networks to facilitate other citizens' public life.

In literature there is no a shared definition of civic hacking, according to Campbell (2007), civic hackers are “citizens who develop their own applications in order to provide community with simple and tangible benefits, linked to the civic aspect of their public life”.

Civic hacking could be seen as the answer, even if without permission, that citizens need in order to better exploit available data to generate new value for community (Lathrop and Ruma, 2010; Lovari, 2013). Civic hackers aim to achieve an open government and prefer to intervene in order to fill the gap that characterize public administrations, ensuring public access to data for all. In this sense, the aim is to develop an online platform, owned by public administrations, that can be used by civic hackers in order to provide the rest of citizens with data, showing how public institutions operate and allowing the assessment of their performance (Lovari and Iannelli, 2017).

The main ratio is to engage citizens in their public life in order to limit useless and redundant measures.

In this sense, civic hacking can be considered as a social innovation, more precisely as a relational and physical innovation based on the provision of services aimed to satisfy users' needs. It is an innovation that starts thanks to the intent to do more and to build a better future, reducing inefficiency and ineffectiveness that characterize public services. On the other hand, civic hacking could be useful for the public sector too, fostering collaborations with civic hackers, in order to exploit their expertise in open data and hypothesizing, in a future perspective, the achievement of the concept of "we-government".

3. Methodology

Even if there is no common agreement in literature, section 2 is dedicated to the new concept of civic hacking providing a potential definition.

Then, such concept is studied with a specific focus on the Italian context: Spaghetti Open Data, Wikitalia, Open Puglia, Open Street Map, Digital Champions and OpenPolis are the main communities that epitomize civic hacking in Italy. To do so, a multiple case-study analysis has been conducted.

Data was collected by taking into account what such organizations communicate through their official websites, then they were analyzed in qualitative way.

The last section is dedicated to conclusions: in a future perspective, civic hacking could represent a true driver for change in government-citizen relationships, but, to do so, it has to be recognized as an official and intelligent tool by public administration.

4. Findings

In Italy the phenomenon of civic hacking has developed with a huge delay compared to other countries: it is only in 2010 that it started its continuous growth.

The main initiatives that epitomize civic hacking in Italy are Spaghetti Open Data, Wikitalia, Open Puglia, Open Street Map, Digital Champions, and Open Polis.

Spaghetti Open Data is a community founded in 2010, every year it organizes a national event addressed to all people interested in. It operates in a context that is not easy, with public administrations less interested in collaborating and sharing their data.

Then, the main scope pursued by Wikitalia is to foster participation and democracy within governments. “Agile Civic” represents its main initiative, with the aim to favor democratic consultation, but since 2015 it appears less active, achieving results that are not relevant.

On the other hand, Open Puglia represents one of the most operative organization, collaborating with the region and building coalitions between leaders and citizens. It provides several services, always with the aim to reduce the cost of communication.

Open Street Map is an online platform developed in 2014 that aims to become the only free database in the world.

Digital Champions is a community of the European State’s ambassadors who intend to coordinate national and Community measures in terms of digitalization.

Lastly, Open Polis, founded in 2006, is the most active association in Italy. For what concerns the economic point of view, it operates independently, participated by thousands of people, with the aim to engage citizens.

It has developed several projects in different contexts: Open Parlamento; Indice di produttività (productivity index); Camere Aperte; Open Action; Open Bilanci; Open Municipio; Open Politici; Voi siete qui.

As previously seen, the association is independent, funded by contributions coming from associates and donors. OpenPolis aims to eliminate information asymmetry that characterizes the Italian context, according to civic hacking principals.

On the basis of what has been analyzed, while around the world the aim is to obtain a data “democratization” (Goldsmith and Crawford, 2014), for what concerns the Italian context the aim is still to encourage

public administration to share data and to improve their quality. It appears fragmented, with different associations focused on different fields, such as politics, environment, and transparency.

5. Conclusions

The public sector has always been characterized by the need to innovate and to evolve and the development of the ICT fostered the development of the new strategies of e-government and open government, based on a new idea of transparency.

And is such new concept of transparency that fostered citizens to do more in order to improve civic life for all. They are citizens with specific computer and technological skills, they are “good hackers” who developed the new phenomenon of civic hacking.

Civic hacking represents an innovative practice, according to which citizens enter protected network in order to exploit public data on the basis of their needs. In Italy the development of civic hacking is characterized by a deep delay compared to other countries (especially America and England) and it has led to a fragmented situation with several associations focused in different aspects.

In terms of future perspectives, civic hacking, based on civic engagement and participation, could ensure an effective collaboration between public and private actors, in line with the e-government and open government paradigms. Furthermore, we can hypothesize a combination between civic hacking and civic crowdfunding, defined as the “collective funding for public projects that goes beyond public budget, realized through the contribution of the private sector” (Castrataro and Barollo, 2013). So, a new kind of participation that could encourage citizens to fund public projects, but, to achieve so, it is necessary to inform citizens about goodness and convenience that characterize a specific project.

Changing the public sector is possible, but to so government–citizens relationships must be based on transparency, with civic hacking that represents a good starting point.

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HEALTHCARE ORGANIZATIONS AND PUBLIC HOSPITALS: EMERGING ISSUES DURING AND AFTER THE COVID-19 PANDEMIC

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KEYWORDS: Hospital Management, Healthcare Organization, Strategic Planning.

1. Objectives

The aim of this study is to map and understand how the healthcare system, including public hospitals and healthcare organizations, is overcoming obstacles to the introduction of management and business approaches and practices that will enable it to survive and continue providing an acceptable level of care despite a wide variety of constraints. The COVID-19 pandemic, which has put additional stress on an already-stressed healthcare system, has made the need for change more urgent than ever before. We aim to map and understand the obstacles to change and how they are being overcome, such knowledge and understanding are crucial for remedying the situation, adjusting quickly to unforeseen situations in the future and may also help solve the organization's financial, managerial and organizational crisis.

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2. Theoretical Background

Health systems worldwide function in turbulent local and global ecosystems. They are affected by economic, demographic, and technological factors as well as world trends and extreme crises. To survive the changes and the resulting pressures of a dynamic and constantly changing environment, public hospitals and various healthcare organizations have been obliged to adopt new management and business practices.

This turbulent and unstable environment has led to increased competition within the health system. And this competition—together with chronic under-funding, pressure to reduce per capita costs, and increased demand caused by greater health awareness—has created budgetary pressures (Naamati–Schneider, 2020; Naamati–Schneider & Zaks, 2022). Taken together, these factors constitute a chronic crisis situation for managers, the leadership of the hospitals, and medical staff. To keep hospitals from collapsing and to maintain an acceptable level of care, they must adapt and develop new services and adopt the values, organizational culture, and creative solutions of the business sector (Kash *et al.*, 2014).

The COVID–19 pandemic, which caused a nationwide emergency, exacerbated the need to find solutions, under conditions of great uncertainty. The reduction in the number of elective surgeries (Argenziano *et al.*, 2020) and other medical activities severely damaged the hospitals' economic stability, lengthening the queues for treatment, leading to staff cuts, and damaging hospitals' reputations. These extreme developments have reduced the ability of hospitals and healthcare organizations to function from day to day. To resolve the problem, public hospitals and healthcare organizations have implemented strategies and processes that generate competitive advantage and positioning and are suited to a dynamic and competitive market. Among these changes, there are collaboration and digital transformation. However, these changes have been met with indifference or even hostility by many members of the hospital staff, thus impeding their implementation.

The outbreak of COVID–19 highlighted the need for public hospitals and other healthcare organizations to become financially stable

without relying exclusively on government funding (Bar, 2020). However, structural and organizational changes involve a complex process that has a great impact on the organization and on the management. It must be regulated and controlled, because it involves all levels of employees, from medical staff to managers (Ginter 2018; Naamati-Schneider, 2020; Vrontis *et al.*, 2018). Mapping and understanding the obstacles and difficulties in advance are crucial to the success of the process.

This study maps and highlights the changes and the organizational-managerial processes of adaptation that the public hospitals and healthcare organizations have undergone in response to changes and crises in their environment.

3. Methodology

This qualitative study was based on in-depth, semi-structured interviews. The participants were key figures in the health system and hospital managers at various levels of management, doctors, department heads, and other crucial individuals in public hospitals and healthcare organizations. The interviews were recorded and transcribed, with the consent of the participants and as is customary in qualitative research. The data collected from the interviews were analyzed thematically. First, initial categories were generated from the data. In the second stage, a search of common themes that fit well with the data was conducted. An examination of the relationships between the different levels of existing themes enabled the researchers to define overarching themes and obtain a more comprehensive picture of the data collected (Shkedi, 2011; Shleski & Alpert, 2007; Tsabar Ben Yehoshua, 2016).

4. Findings

The main findings are that the health market and the hospitals are constantly making far-reaching changes in their strategic, business, and marketing behaviors and that these changes are escalating as part of the

changing ecosystem, reforms, and increased competition, coupled with the extreme situation created by the COVID-19 pandemic since 2020.

The outbreak of the global COVID-19 pandemic has exacerbated the distress of hospitals in many ways, severely damaging their economic stability and reputations and forcing them to produce immediate and creative solutions, both medical and managerial.

The main categories that appeared in the analysis are Implementing Marketing, Advertising, and Business Strategy; Customer-oriented Organization; Profit from Nonmedical Services; Collaboration and Development of Business Entrepreneurship; and Implementing Digital Transformation.

5. Conclusions

This study makes an important contribution toward understanding health systems management by examining the extent, components, and implementation of a business strategy and digital transformation as means of coping with a changing environment and extreme situations such as the outbreak of the global COVID-19 pandemic. Mapping and understanding the changes, barriers, and difficulties in this organizational process will make it possible to anticipate future developments, examine problems in the health system, and explore future options and optimal scenarios for contending with change.

Deepening and expanding knowledge of this topic may help policy-makers, hospital directors, and managers make system-wide decisions regarding managing the system, guiding it, and making it more efficient and stable in the turbulent environment that surrounds healthcare organizations. In addition, expanding knowledge on this topic can help in adjusting quickly to unforeseen situations in the future like the global COVID-19 pandemic. It may also help to solve their financial, managerial and organizational crisis through new business collaborations and implementation of new technology, such as digital medicine, big data analysis, digital monitoring of patients, touchless treatment, robotics, and innovative respirators (Confortes, 2020a, 2020b).

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TOWARDS EFFECTIVE SUSTAINABLE MODELS FOR DEVELOPING UNDERDEVELOPED AND UNPOPULATED REGIONS. THE EXPERIENCE OF URBAN FOREST INNOVATION LAB (UFIL) PROJECT IN CUENCA (SPAIN)

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KEYWORDS: Entrepreneurship, Sustainability, Business Model, Environment, Sustainable Entrepreneurship.

1. Objectives

The main objective of this article is to fill the existing void on effective institutional models that develop economically and socially depressed areas from a sustainable point of view by presenting the European project Urban Forest Innovation Lab (UFIL), developed recently in the municipality of Cuenca (Spain) and its forests.

In all, the main aim of this paper is to introduce UFIL as an innovative and novel proposal within the forest-based bioeconomy entrepreneurship field, analyse its strengths, weaknesses, opportunities and threats in order to identify aspects that have had a good performance and things that haven't and thus prevent similar failures if projects as UFIL are set up in other EU cities or regions.

This article has several implications that may be useful for practitioners willing to implement projects similar to UFIL, which aims to

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promote the entrepreneurship in the forest bioeconomy, since it may enable a better understanding of the aspects that can improve management and an anticipation to solve the difficulties that may arise

2. Theoretical Background

This study will begin with a brief overview of the basic concepts that need to be understood and managed in relation to forests and entrepreneurship, such as circular economy (CE), forest bioeconomy (Karvonen *et al.*, 2017; D'Amato *et al.*, 2020), which builds on the paradigms of CE, sustainable entrepreneurship theories (Dean and McMullen, 2007; Shepherd and Patzelt, 2011) and the SWOT framework (D'Adamo and Rosa, 2016).

These adequate knowledges and understanding of these concepts will help to better comprehend the proposed model that is developed in this article.

3. Methodology

The methodology is based on the analysis of the UFIL project, beginning with a description of the UFIL project, its origins and motivation and the European, national and regional context in which it operates, which is the forest bioeconomy and the twelve areas of opportunity detected which promote forest utilisation and thus the forest bioeconomy: 1) Biodiversity services, 2) wood engineering (focussed on construction and public works), 3) carbon stockpile and timber resources, 4) biomass and biofuels, 5) technology for forestry management and harvesting, 6) wood chemistry and new materials, 7) forests for water, 8) resin, 9) agroforestry products, 10) mycology, 11) design from forest products and 12) hunting and extensive livestock farming.

One of the central elements of the UFIL project is its rural–urban approach that transcends the purely urban and goes beyond the city of Cuenca itself. This is why there is a description of the provincial context of UFIL which includes a detail of the forest of Cuenca, an analysis of the

situation of depopulation in the province and a diagnosis of its business sector which includes a comparison between provinces of Castilla – La Mancha.

Finally, it is found an overview of UFIL functioning, an analysis of their SWOT (strengths, weaknesses, opportunities and threats) and a brief description of some of the companies emerged from it in its first two promotions.

4. Findings

UFIL emerged as a UIA project oriented to promote and enhance a depopulated and depressed region in Europe (the forest area of Cuenca). It was born with the main objective of designing and implementing a rural–urban solution to foster entrepreneurship initiatives around its forest area, from the prevention to the sustainable utilization of its resources. Importantly, UFIL’s idea is making the most of the forest as a test laboratory for bioeconomy initiatives.

Talking about the forest bioeconomy context and referring to Europe, its forest area has been steadily increasing to 227 million hectares in 2015, accounting for 35% of its total area. This growth in forest area varies between European countries: Spain has grown the most annually during the period from 1990 to 2015, with an average of 155.6 ha/year (Forest Europe, 2020).

Regarding the Spanish background, particularly noteworthy and of special relevance is the Spanish Bioeconomy Strategy Horizon 2030 (2015), which aims to adapt, specify and develop the European Bioeconomy Strategy to the Spanish framework and whose main task is to boost economic activity and improve the competitiveness and sustainability of productive sectors that are linked to the use of use of bio–based resources. In relation to the forest bioeconomy, the Plan for the Socioeconomic Activation of the Forestry Sector (2014) stands out. It stems from the whole of the previous line from the Spanish Forestry Strategy and the Spanish Forestry Plan. This instrument aims to improve the structure and business fabric of all industries and sectors related to forests and woodlands. It also

aims to improve the status of forestry workers, to contribute to the diversification of economic activity in rural areas and the added value of their products, and to influence the demand for forestry products.

Talking about the regional context, Castilla – La Mancha, the region where UFIL is located, has developed the Plan for the Conservation of the Natural Environment, which is the basic planning framework for the management of the natural environment in the region. In Castilla – La Mancha there are around 750,000 hectares of forests under the public utility regime, which represents 21% of the autonomous region's forest surface of the autonomous region's forests.

The UFIL project identified twelve niches of opportunity, although the opportunities offered by forests are immense, so the number of areas can be increased, but in this article we will focus on the twelve previously mentioned: 1) Biodiversity services, 2) wood engineering (focussed on construction and public works), 3) carbon stockpile and timber resources, 4) biomass and biofuels, 5) technology for forestry management and harvesting, 6) wood chemistry and new materials, 7) forests for water, 8) resin, 9) agroforestry products, 10) mycology, 11) design from forest products and 12) hunting and extensive livestock farming.

According to data from the Third National Forest Inventory (IFN₃), the province of Cuenca has just over 810,000 hectares of forest land, which represents 47.3% of its total surface area, accounting for a quarter of the total forest area of Castilla – La Mancha. Indeed, it has the largest wooded forest area in the region. One of the aspects related to forestry in which Cuenca has been a pioneer is forest certification, as it is the first province where forest certification systems are being implemented in forests managed by the regional administration.

Another core topic that affects the province of Cuenca and that needs to be referred to understand the context in which UFIL is developed is depopulation. The low population density currently affecting the province of Cuenca has been developing for almost six decades. Specifically, it is estimated that since the middle of the last century the province has lost a little more than a third of its 1950 population. Depopulation is linked to a series of effects that directly affect the territories and the quality of life of the people who live in them, such as the loss of quality social services and administrative neglect (Jelić and Kolarević, 2021), the abandonment of

farming activities and the lack of job opportunities (Fernandes, 2019; Ghasemi and Moeini, 2022), the increase in environmental risks such as fires or loss of biodiversity (Lasanta *et al.*, 2017), the declining birth rate and ageing of the population in rural areas (Reynaud and Miccoli, 2018) and the disappearance of cultures and traditional knowledge and the loss of rural identity (Murin, 2022; Mesa, 2019).

Regarding the business sector around the forest bioeconomy in Cuenca, the total number of companies in the forest bioeconomy sector in Cuenca and province is 528 companies, which corresponds to 3.94 % of the total number of companies in Cuenca. The total number of companies in the forest bioeconomy sector in Castilla la Mancha is 4,892. The procedure used for data processing is similar to the analysis carried out in the description of the forest bioeconomy business sector in Cuenca (see Table 1).

Table 1. Number of forest bioeconomy companies in Castilla – La Mancha, divided into provinces. SOURCE: Statistics Service of CLM.

Albacete	Ciudad Real	Cuenca	Guadalajara	Toledo	Total
1,035	1,148	528	427	1,751	4,889

The province of Castilla La Mancha that occupies the first position, bringing together the largest number of selected companies in the forest bioeconomy sector, is Toledo, the most populated province in the region. Cuenca holds the penultimate position in this comparative despite the great potential of the province, with Guadalajara being the province that closes this comparative due to the smallest number of companies under study.

After this analysis, the UFIL project structure and functioning is detailed.

Table 2 demonstrates the SWOT of the UFIL project in Cuenca city and its province. According to the strengths and opportunities shown in table 2, Cuenca has great potential to host the development of such an innovative and disruptive project as UFIL, which aims to generate entrepreneurship around the forest bioeconomy sector and further promote its sustainable development.

Table 2. SWOT Analysis of the UFIL Project. SOURCE: Own elaboration.

Internal factors	
Strenghts	Weaknesses
1. High interest of private companies, the public sector and citizenship in the forestry and bioeconomy sector and trends 2. Participation of University of Castilla – La Mancha and CEOE–CEPYME (Confederation of Entrepreneurs), entities with extensive knowledge of the socio–economic reality of the province 3. Adequate environmental conditions to develop the project and generate positive interaction of participants with different profiles 4. High quality program and special attention to aspects of feasibility and desirability, vital for entrepreneurship. 5. Strong support from the Municipality of Cuenca and the Government of Castilla – La Mancha which is relevant due to the substantial resources at their disposal, both financial and non–financial	1. Limited time horizon of the project, low dynamism of the city of Cuenca and its province and reduced number of scholarships offered by the project 2. Lack of fixed funding or funding lines for projects that emerge from the programme once they have finished their journey in the programme 3. Novelty of the project and, because of that, possibility of mistakes and misunderstandings 4. Major disruption to the programme due to the global pandemic of COVID–19, which has necessitated a significant part of the programme’s development to be modified 5. Difficulty of access and connectivity in rural areas, which hampers development options
External factors	
Opportunities	Threats
1. Emergence of different local and rural development plans that show the commitment of municipal politicians to the city and of provincial and regional politicians to the province and its smaller municipalities 2. Construction of a circular economy science and technology park integrated into the University of Castilla – La Mancha, which will give a boost to this area 3. Willingness by community ownership, local councils and enterprises of offering opportunities to improve the civic and economic life of these depopulated areas 4. Opportunities for tourism development and heritage enhancement due to the diversity of the province 5. New and unique programme of its kind and assistance and support to participants by specialised and expert mentors	1. The ageing of the population and the emigration of young people threaten the development of new businesses and entrepreneurial dynamism 2. Uncertainty and lack of knowledge of all the opportunities offered by the forest, which can lead to a waste and a general under–utilisation of resources 3. Potential for failure due to the lack of previous models to build on 4. Possible changes of government could destabilise the project 5. Uncertainty caused by the COVID–19 pandemic

5. Conclusions

In this article we have basically proceeded to describe the UFIL program, how it came about, what its objectives are and what development it is reflecting in its earliest stages. Although intensive research work has been carried out, not all the factors that make an effective model in fulfilling the objective of promoting sustainable entrepreneurship have been analysed, mainly because the project is still being developed.

Some very interesting aspects of UFIL that are different to other projects and that are considered powerful from the entrepreneurship theory are the public–private collaboration that it fosters, the involvement of the University of Castilla – La Mancha and the extensive knowledge that this institution can provide for the benefit of the project and the support of the CEOE (Confederation of Entrepreneurs of Cuenca) in finding funding for the trainees and interesting links with firms interested in participating in the project. In addition, future entrepreneurs a) receive funding during training — which is considered to be of high quality and level, b) are provided with R&D knowledge and adequate infrastructures and last but not least c), are given large support (social networks, facilities) by the municipal, provincial and regional government entities.

An important limitation to be recognized is that this article has only had the description of UFIL and two other existing models. However, a more exhaustive comparative analysis could be made with other models from other regions and compare UFIL with the content of each one of them to see gaps that allow us to improve in the development of an effective model that can be extrapolated to other world regions. Furthermore, the first cadre of the project has not yet reached the halfway point, so its results cannot yet be evaluated. It is advisable to carry out a new analysis once this and other cadres of students have finished.

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THE CIRCULAR ECONOMY AND ITS EFFECTS ON REDUCING THE CARBON FOOTPRINT IN IKEA COMPANY

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KEYWORDS: Digital Transformation, Manager, Top Management Team, CEO.

1. Objectives

The green economy, reducing the carbon footprint and achieving environmental sustainability require a paradigm shift in the production model of companies and industries. The circular economy can help in this regard (Bonviu, 2014), as it is a sustainable and environmentally friendly type of model (MacArthur, 2013; Lewandowski, 2016), which governments strongly encourage due to the long-term benefits likely to be obtained in terms of pollution reduction and energy efficiency.

The aim of our research is to analyze how a given company has made this change of model. To achieve this, we have clearly defined what the circular economy is. We have presented the case of the IKEA company as a company faithful to the principles of its founder but which for that reason wants to be at the forefront of environmental preservation, reducing its CO₂ footprint and above all, leaving a better world for the next generations.

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2. Theoretical Background

Carbon footprint reduction and the achievement of sustainable development pursued by the circular economy require disruptive changes and innovations. An integration between sustainability and business development is more and more necessary and requires the development of novel goods, services and management methods that result in a reduction of negative impacts on the environment. This is what Kemp and Pearson (2007) have called eco-innovation.

Circular economy thinking has recently generated more attention from the business community (De Angelis, Howard, & Miemczyk, 2018). One of the causes for this is the worsening of the environment. Biodiversity loss, water, air and soil pollution, resource depletion and land overuse have led to increased environmental awareness (Rockstrom *et al.*, 2009; Jackson, 2009; Meadows, Randers, & Meadows, 2004; McLellan *et al.*, 2014). On the other hand, socio-economic and regulatory changes have encouraged companies to attach greater importance to this issue. All these developments and concerns have led to numerous studies focusing on aspects such as the concept of the circular economy itself (Prieto-Sandoval, Jaca, & Ormazabal, 2018; Kirchherr, Reike, & Hekkert, 2017), circular business models (Bocken *et al.*, 2014; Lewandowski, 2016), in the taxonomy of reduce, reuse and recycle (3R) (Sihvonen & Ritola, 2015), in value creation along the supply chain (De Angelis *et al.*, 2018; Schenkel *et al.*, 2015) or in the relationship with sustainable development (Prieto-Sandoval *et al.*, 2018). However, the scientific and research content that can be found is in most cases superficial and messy, and there are certain aspects within this thematic largely unexplored (Korhonen *et al.*, 2018).

3. Methodology

The use of the case method is considered appropriate for the achievement of the objective because it is in line with the premises set out by Yin (1994). This methodology is an empirical research method that analyses a contemporary phenomenon in a real-life context by using different sources of

empirical evidence. As Patton (1987) points out, the use of this type of research method is justified by the great usefulness of analysing a complex phenomenon that is not well known at the time of the study.

In the case of IKEA, we found sufficient justification based on these three issues: it is a sufficiently unique company to be a benchmark for other companies. IKEA is a large group with incredible accounts and figures. Según sus datos publicados sobre su actividad (IKEA, 2020; Ingka, 2020), we can imagine that all of this generates an enormous carbon footprint that needs to be reduced if want to make a sustainability policy. In this sense, IKEA can be understood as an outstanding example of implementation of the circular economy that also has a series of specific characteristics that have made it practically unique in the way it has developed this model.

4. Findings

IKEA has a vision — to create a better everyday life for many people — and right now they see this as more relevant than ever. The company has a great purpose in mind, to have a positive impact on people and the planet and to contribute to wider changes in society. Actions speak louder than words, and the aim is to demonstrate this with deeds.

In general terms and in terms of sustainability:

- 1) IKEA Clean Energy Services sales in 11 countries grew by 90% and the community of clean energy producers and consumers accumulated savings of more than 10 million euros and 63,000 tonnes of CO₂. In short, if any company is considered an important player in promoting positive change in society it must be IKEA.
- 2) It has managed to give a second life to 39 million reclaimed products. 30.5 million products were resold through the “As-Is” shop, and more than 8 million products were repackaged and sold at affordable prices, saving CO₂ for the planet and money for citizens.
- 3) IKEA has invested in 547 wind turbines and 2 solar parks in 14 countries and has 935,000 solar panels on the roofs of its shops and warehouses.

So, by 2030, the big ambition is to transform the company into a circular and climate-positive company. To achieve this, the company will promote the use of sustainable materials and reduce greenhouse gas emissions more than the IKEA value chain emits, in order to contribute to limiting the global temperature increase to 1.5°C by the end of the century. This high ambition is broken down into (IKEA, 2020: 22):

- 1) Transforming itself into a Circular Business and becoming itself climate-positive.
- 2) Regenerating resources, protecting ecosystems and enhancing biodiversity.
- 3) Creating a movement in society around better everyday living.

The IKEA group aims to Circular living is easy (IKEA, 2020). Resource efficiency has always been part of the way of working at IKEA. Now the company wants to help make circular consumption the new normal for customers as well. IKEA realises that its customers do not like to waste, and neither does the company. In fact, they value the things they have and want to repair, reuse, and recycle. However, there are problems in putting them into practice (lack of time, space, tools, or just good intentions). By testing, adopting, and scaling up new circular solutions, some of these barriers can be removed. IKEA therefore focuses on three key challenges:

- Restoring value: extending the useful life of materials and giving IKEA products a second life.
- New approaches to ownership – services that offer customers more flexible access to furniture without the need to own it, saving resources.
- Things we no longer need – helping people deal with clutter by 2030, IKEA will move to a circular business model, adapting how and where it meets its customers. All IKEA products will be made from renewable or recycled materials and will be designed from the ground up to be reused, repaired, re-purposed, re-sold or recycled.

5. Conclusions

IKEA has the so-called SEW values. This means that they prefer non-economic goals in many cases as opposed to the generally accepted economic goal. In this way, aspects such as reputation, loyalty, belonging, status, and security or even altruism have a place in family businesses (Nicholson, 2008). In this case, the preservation of the environment and therefore the implementation of a circular economy business that implies a reduction of environmental impact is at the heart of the company.

From an ethical point of view, we appreciate that IKEA has the following strategic objectives:

- A. Designing each product to be reused, refurbished, remanufactured and ultimately recycled, applying its circular product design principles during product processing.
- B. Using only renewable or recycled materials, adapting and sourcing and developing new materials.
- C. Finding circular solutions for existing and new customers to purchase, care for and pass on products to other potential users.

What is noteworthy is that there was also a 7% decrease in climate footprint per unit of retail sales between 2019 and 2020, due to several major improvements across the IKEA value chain. Great achievement indeed for our company under study. But we have certainly been surprised by two things.

None of these ideas could be realised without long-term strategic planning in which the company is clear that the goal is to preserve the planet by changing the production paradigm, making use of the circular economy. Of course, it all starts with a clear objective of reducing the carbon footprint but also with a clear understanding that design is essential to put it into practice. So, IKEA wants to design for the care, repair, adaptability, remanufacturability and recyclability of all its products. Great work done by the company and a great example for all companies, large and small, to follow. Grain by grain, together we can make a more sustainable world.

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THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC INEQUALITY AND ENVIRONMENTAL FACTORS: THE CASE OF ROME

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KEYWORDS: Inequality, Environment, Rome, Air Quality.

1. Objectives

The paper aims to contribute to the discussion of the elaborate links between inequality and environment, analyzing the numerous channels that may mediate the relationship, with a focus on the Italian capital.

An empirical analysis is conducted in order to investigate to what extent the inequality in the capital, explained through socio-economic variables such as social unrest, population density, education and unemployment, is related to the environmental sphere, in terms of emissions of PM₁₀ and NO₂ in the atmosphere.

Since 2016, the Italian blog #Mapparoma (<https://www.map-paroma.info/>) has conducted research projects concerning the Italian capital's fifteen municipalities, depicting data in the form of maps, in order to provide concrete explanations on how the city changes from one district to another. These maps, which represent the starting point of the analysis conducted in the paper, unveil a city characterized by numerous disparities in socio-economic terms.

The objective of the paper is to investigate how these disparities can explain the environmental conditions of the city and whether there are specific relationships that play a crucial role in defining the immense and diversified Capitoline area.

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2. Theoretical Background

Market-based income inequality has continuously increased in developed countries and in several emerging market economies, bringing about considerable implications for population health: this is demonstrated by growing evidence on the negative relationship between income inequality and measures such as self-rated health and mortality (Kondo, Sembajwe, Kawachi, van Dam, Subramanian, Yamagata, 2009).

In particular, it appears that inequality has a spillover effect on population health through the environment: the literature suggests a direct association between unequal societies and degraded environments, known as the equality/sustainability hypothesis (Cushing, Morello-Frosch, Wander, Pastor, 2015).

One of the earliest studies on this theory analyzes seven measures of environmental quality using data of the United Nation's Global Environment Monitoring System: average urban concentrations of sulfur dioxide, heavy particles in the air, smoke, dissolved oxygen, fecal coliform bacteria and population with access to safe water and sanitation (Torras, Boyce, 1998). Inequality is defined, instead, through the Gini coefficient, the literacy rate, and qualitative indices of political rights and civil liberties, developed by Freedom House (Finn, ed. 1996).

It emerges that inequality worsens both air and water quality, although this happens mostly in low-income countries. Under certain circumstances the equality/sustainability hypothesis is contradicted (e.g., income inequality is associated with lower SO₂ and fecal coliform levels in high-income countries). These and similar findings suggest the need for further investigation on the relationship, as countries' political and development contexts might play a crucial role. (Rupasingha, Goetz, Debertin, Pagoulatos, 2004).

The paper studies the city of Rome to investigate what is, within the capital, the link between socio-economic variables and environmental factors.

From a number of #Mapparoma studies, it emerges that Rome is made up of at least two cities, which make it highly unequal. In general, the first maintained a stable, even increasing average income in the years after the financial crisis, and benefited from the subsequent recovery.

The second Rome, instead, was heavily hit by the crisis, and is still working to reach a full recovery in terms of income, social inclusion and personal opportunities (<https://www.mapparoma.info/>). According to the equality/sustainability hypothesis, this high inequality should translate into high environmental degradation in the entire city.

Socio-economic data, used as a proxy of inequality, are put together with environmental data in terms of air pollution levels, in order to seek potential correlations and provide an advancement in terms of knowledge on the issue.

3. Methodology

In order to answer the research question, the paper adopts a quantitative methodology.

Socio-economic variables, including the index of social unrest, education, unemployment rate and social exclusion in the digital sphere, are extracted from different sources. Specifically, the unemployment and education variables are elaborations of the Statistics Office of Roma Capitale based on Istat data (<https://www.comune.roma.it/>); Income variables are retrieved from the Ministry of Economics and Finance website (<https://www.mef.gov.it/>); Data on the digitalization level are elaborations based on AGCOM data (<https://maps.agcom.it/>).

From an environmental standpoint, data used for the analysis include the level of PM₁₀ and NO₂ emissions. They are retrieved from two sources: ISPRA's annual report on environmental data, which represents the most complete collection of statistical data on environmental conditions in Italy (<https://annuario.isprambiente.it/>); ARPA Lazio, which carries out the institutional task of monitoring the air quality situation within the Lazio region (<https://www.arpalazio.it/>).

4. Findings

Data show that the Italian capital's city center is wealthier than the peripheral areas of the city, where social and financial distress is demonstrated by the presence of lower-income families, lower levels

of digitalization, inefficient services and infrastructures (<https://www.mapparoma.info/>).

Nevertheless, the empirical analysis does not reveal a strong association between socio-economic variables in each Roman municipality and emissions levels: areas characterized by high social unrest, high unemployment, low education levels and low digitalization levels are not automatically related to higher environmental degradation. The research displays low levels of the correlation coefficient and the R-squared in most of the cases considered. In addition to this, emissions levels registered in the city of Rome are always below the threshold: this implies that despite the high level of inequality, environmental degradation does not increase in the same proportion.

In support of these findings, some studies have identified an inverted U-shaped relationship between income, as a proxy for an economic indicator, and environmental degradation (World Bank, 1992).

According to these studies, at low-income levels pollution and income are directly related; on the contrary at high levels of income, pollution decreases with income. This implies that in poor and underdeveloped countries, growth is generally associated with worsening environmental conditions, whereas once a threshold level of income has been achieved, growth is linked to higher environmental quality. The watershed varies on the basis of the pollutant considered, but is always around \$8,000 (Grossman, Krueger, 1995).

5. Conclusions

The within-country study on the potential relationship between socio-economic indicators and environmental factors does not reveal the existence of strong linear associations between variables. The research displays low levels of the correlation coefficient and the R-squared in most of the relationships considered.

The research question remains open and does not allow to confirm that high social unrest, high unemployment, low education levels and low digitalization levels are related to higher environmental degradation in the city of Rome. However, the study provides an advancement

of knowledge on the issue, as it emerges that non–linear effects appear to play a part: in several relations considered, in fact, the use of polynomial tendency lines brings about an increase in the coefficient of determination.

This theory is supported by studies showing how only inequality in income among countries can lead to different outcomes in environmental terms: it has been shown that the equality/sustainability hypothesis holds in low–income countries, but does not in high–income countries, leading to the emergence of inverted U–shaped patterns.

It is possible that these patterns arise because, as countries develop, they stop producing pollution–intensive products and import them from third countries with less stringent environmental regulations. This question, however, requires further research.

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CIRCULAR ECONOMY IN THE MARITIME SECTOR: A LITERATURE REVIEW

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KEYWORDS: Circular Economy, Maritime Sector, Circular Economy Principles, Sustainable Development.

1. Objectives

The implementation of a circular economy has appeared as a response to the need to challenge the flaws of the current linear economic system (Scheel *et al.*, 2020). The circular economy enables economic growth and prosperity in accordance with environmental protection and sustainable development. The European Commission has assessed that transitioning to a circular economy would mean an additional 600 billion euros in annual economic gains for the European Union manufacturing sector (Korhonen *et al.*, 2018). Therefore, the Circular Economy has been an object of increasing attention among policymakers, stakeholders in the last years and became one of the most significant in national policies in a growing number of countries.

Maritime sector is one of the contributors to employment and GDP in many countries and regions. Nevertheless, this sector also causes significant environmental impacts and can produce negative externalities. It requires resources such as water, energy and produce large amounts of waste, noise and air pollution, that cause the linear economy model. Therefore, implementation of circular economy could reduce consumption of natural resources, waste and CO₂ emissions.

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The idea of implementing the circular economy concept is widely used in EU documents and legislation. Most research on a circular economy concept focused on the particular products or parts of the manufacturing process or the possibility of implementing a circular economy principles in a particular company. However, there are only few references to the application of circular economy in the maritime sector.

The research question is what are the current trends of research in circular economy and maritime sector and what kind of knowledge is produced? The aims of this paper are to present a bibliometric review on the circular economy in all fields of research, the main journals publishing research on circular economy and the research fields where this scientific production is published; to analyse the importance of the literature of circular economy in maritime sector and to identify the knowledge areas in maritime sector that this scientific production on circular economy and maritime sector cover and to indicate the areas where new knowledge is needed.

2. Theoretical Background

This section encompasses the theoretical consideration of a circular economy concept.

2.1. *Concept of a Circular Economy*

The circular economy concept has deep-rooted origins and cannot be traced back to one single date or author. Its practical applications to modern economic systems and industrial processes, however, have gained momentum since the late 1970s as a result of the efforts of a small number of academics, thought-leaders, and businesses (Ellen MacArthur Foundation, 2013). A circular economy can be defined in different ways. Lieder and Rashid (2015) point out that «there are various possibilities for defining circular economy», while Kirchherr *et al.* (2017) write that «there is no commonly accepted definition of circular economy». They define a circular economy as

an economic system that is based on business models which replace the 'end-of-life' concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes, thus operating at the micro level (products, companies, consumers), meso level (eco-industrial parks) and macro level (city, region, nation and beyond), with the aim to accomplish sustainable development, which implies creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations.

Ellen MacArthur Foundation (2013) presents a circular economy as «an industrial system that is restorative or regenerative by intention and design. It replaces the 'end-of-life' concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models».

The main aim of the circular economy is considered to be economic prosperity, followed by environmental quality; its impact on social equity (Ghisellini *et al.*, 2015).

The transition to circular economy needs to occur at three levels which can be interpreted as three levels of the circular economy system: the macro, the meso and the micro system (Kirchherr *et al.*, 2017).

2.2. Core Principles of the Circular Economy

In the beginning, the circular economy concept was based on the 3R principle (reduce, reuse, recycle). The 4R framework was presented in the European Union Waste Framework Directive (European Commission, 2008) introducing 'Recover' as the fourth R. More recently scholars have proposed R frameworks beyond the 4R framework, such as the 6Rs (reuse, recycle, redesign, remanufacture, reduce, recover) (Jawahir & Bradley, 2016) or even 9Rs with the latter framework, possibly the most nuanced one, depicted in Fig. 1. (Kirchherr *et al.*, 2017).

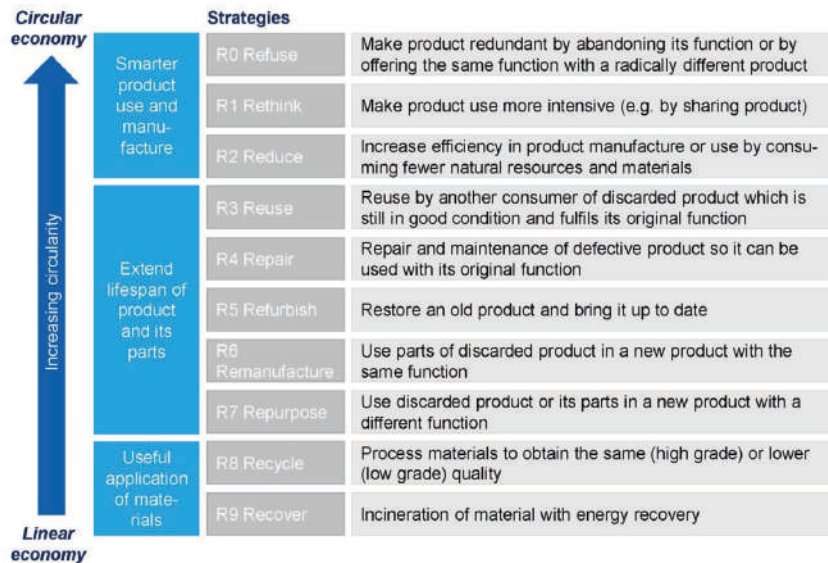


Figure 1. The 9R Framework. SOURCE: Kirchherr *et al.*, 2017.

3. Methodology

To answer the research questions, it was carried out a general review of articles, conference proceedings and review articles, on circular economy and a literature review of specific articles and conference proceedings on the circular economy and maritime sector in two databases: the Web of Science and Scopus. These two databases were reviewed as they are the most important databases holding the literature which shows the greatest impact in a particular field. The last search was made at the beginning of April 2022.

The keyword “circular economy” was searched for the general bibliometric review on circular economy in any field. Only papers published in English were considered for the sample, which totals to 13192 scientific papers in the Web of Science database and 8243 — in Scopus. The period scanned for this general review on circular economy was from 1990 to April 2022.

To analyse the importance of the circular economy literature in the maritime sector, the keywords used are related to the maritime sector and circular economy, such as maritime sector, marine sector, maritime industry, marine industry, circular economy, circular port, circular fishing, circular shipping, and so on. Only papers published in English have been considered in the sample, which totals to 55 articles and books. The period considered for this literature review on circular economy and maritime sector was from 1990 to April 2022. The selection process of each paper started with an analysis of the title, abstract and keywords selected in the paper (first step to accept the paper for the sample), and then, followed revision of the main text, especially focusing on the findings and conclusions (second step to accept/reject the article).

4. Findings

A literature review was conducted using the keyword ‘circular economy’ in the Web of Science and Scopus database. The last search was made at the end of April 2022. Only papers published in English were considered in the sample, which totals to 13922 scientific papers Web of Science database and 8243 – in Scopus. Each contribution is analysed and, according to its content, classified into four streams; then, the paper identifies two knowledge areas in the maritime sector that this scientific production covers and the areas with lack of knowledge generated.

Table 1 shows the origin of some of the papers used in this study. The journal that gathers the most papers on the circular economy in the Web of Sciences database is the Journal of Cleaner Production with 1215 papers, followed by Sustainability with 1202 and Recourses Conservation and Recycling with 472 papers. Scientific reports mainly arise from the European Commission, the EC is currently working on the implementation of the Circular Economy Action Plan and National Natural Science Foundation of China Nsf.

Table 1. Publications on CE by journal in the Web of Sciences database (1990–April 2022). Top Ten. SOURCE: Web of Sciences database.

Publication Titles	Record Count
Journal of Cleaner Production	1215
Sustainability	1202
Resources Conservation and Recycling	472
Waste Management	258
Science of the Total Environment	243
Energies	224
Journal of Environmental Management	179
Energy Reports	166
Applied Sciences Basel	164
Materials	151

The journal that gathers the most papers on the circular economy in Scopus database is the Journal of Cleaner Production with 825 papers, followed by Sustainability Switzerland with 745 and Resources Conservation and Recycling with 362 papers (see Table 2).

Table 2. Publications on CE by journal in Scopus database (1990–April 2022). Top Ten. SOURCE: Scopus database.

Publication Titles	Record Count
Journal of Cleaner Production	825
Sustainability Switzerland	745
Resources Conservation and Recycling	362
Procedia CIRP	173
Science of the Total Environment	156
Waste Management	156
Energies	134
Journal of Industrial Ecology	109
Sustainable Production and Consumption	95
Journal of Environmental Management	93

However, the literature on circular economy was mainly developed for the manufacturing sector, and it mainly focuses on engineering and

science technologies. Only a few references are found in the maritime sector, which has not received much attention in the circular economy development framework. Only papers published in English have been considered in the sample, which totals to 55 articles and books.

5. Conclusions

Findings show that there are some gaps identified in the literature on circular economy and maritime sector, such as the lack of evidence on how to make the transition to a circular economy model in the maritime sector and more research is needed about the maritime sector intersection with circular economy in order to generate possible solutions towards a more sustainable maritime industry.

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EXTERNAL QUALITY CERTIFICATIONS AND HOSPITALITY FIRMS IN THE POST COVID-19 ERA

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KEYWORDS: External Certifications, Hospitality Industry, COVID-19.

1. Objectives

To fill the research gap, this study examines the role and usefulness of external certifications in the context of the COVID-19 epidemic outbreak. The main research questions are:

- RQ1. What role do quality certifications play in health crisis situations?
- RQ2. Are external quality certifications useful for all types of hotels?
- RQ3. What are the main paths followed by hotels to generate trust among their potential clients?

2. Theoretical Background

Tourism is a very sensitive and vulnerable sector to any risk situation caused by external factors, whether it is a natural disaster, an eco-

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conomic crisis, an international conflict, an epidemic outbreak, violence, or terrorism (Kuo, Chen, Tseng, Ju and Huang, 2008; Jiang, Ritchie and Benckendorff, 2019). In 2020, the COVID-19 pandemic made the world experience the worst health crisis in recent history. Its consequences are spread all over the world and in all sectors of activity.

Emerging infectious diseases have received increased attention from scholars in a wide variety of fields. Recent literature focuses on the economic impact of disease-related morbidity and mortality (Bennett, Chiang and Malani, 2015; Chen, Lee, Lin and Chen, 2018). Tourism and hospitality research suggests that all this can cause a significant drop in the demand, affecting the company's performance — as happened with the S.A.R.S. epidemic — (Kuo *et al.*, 2008).

The rapid spread of the COVID-19 outbreak has caused economic disruption due to border closures and mandatory mass quarantine, which has had a major impact on the tourism industry. All this has exposed this sector to unprecedented pressure, causing a significant reduction in revenue and creating liquidity problems (De Rosa, Lanzilotta, Perazzo and Vigorito, 2020). In addition, customer trust in hotels and other tourism services can be seriously damaged by the effects of epidemic outbreaks, causing a sense of fear and anxiety around the world, which significantly affects purchasing behavior (Reznik, Gritsenko, Konstantinov, Khamenka, and Isralowitz, 2020; Addo, Jiaming, Kulbo, and Liangqiang, 2020).

Hospitality operators strive to find appropriate solutions to maintain and improve or adapt quality standards to mitigate guest uncertainty. In this sector, the quality of the service is paramount for competing, since it influences the efficiency and profitability of the sector and, therefore, its competitiveness (Benavides-Chicón and Ortega, 2014).

In the context of the current health crisis, it is necessary to focus on the measures needed to eliminate any risks that may arise when staying in hotels. A possible solution to remove any risks that may arise when staying in hotels might be the adoption of external quality certifications. The implementation of internationally recognized

quality systems such as ISO certifications is widely recognized as an instrument to demonstrate a firm's commitment to quality, by applying internal communication systems, protocols, and standards (Ortega, Guilló, Moliner, Azorín and Gamero, 2013). However, in recent years, within the framework of their own quality departments, large hotel chains have developed their own quality labels, following their own protocols and standards. This contrasts with the lack of resources of small independent hotels to promote their own quality standards. To our knowledge, the literature has not addressed this issue related to pandemics and other similar global social risks.

3. Methodology

The sample for this study consists of three international hotel chains located among the 60 hotel chains with more than a mere presence in Spain. The first hotel chain (A) currently has 72 establishments and more than 3,000 rooms in more than 20 different destinations —55 in Spain. The second one (B) has 35 hotels —30 in Spain— with more than 1,300 rooms. The third hotel chain (C) has 36 establishments in Spain and more than 1,000 rooms (Table 1). All three companies have establishments located in urban and beach destinations.

The respondents were chosen for their expertise, that is, as key informants. Following the purposive sampling method (Sangpikul and Kim 2009), only top-level hotel executives and managers were sampled, given their high position in the information hierarchy (Kruesi, Kim and Hemmington 2017).

The respondents were all in high-level management positions and had extensive experience in the hotel industry, they were all male and their ages ranged between 40 and 60 years. The interviews were conducted with three (operations, financial and human resources) area managers from the three hotel groups. On the other hand, we also conducted three in-depth open interviews with CEOs from different firms. The interviews, which lasted on average between one and one and a half hours, were conducted by webinar using the Microsoft Teams tool.

As a complement to the interviews, we participated in webinars, interviews or events organized by the different hotel groups. Finally, to complete the principle of triangulation in the collection of information, we accessed internal documents. Consequently, we triangulated the study to ensure internal validity and minimize possible bias in drawing conclusions (Breitmayer, Ayres and Knafl 1993).

The qualitative data collected were analyzed through a content analysis assisted by the software programme ATLAS.ti. This software enables the systematization of the findings according to categories and subcategories illustrated through conceptual networks (Frieze 2018). Two main categories emerged in relation to the research topic: the usefulness of external certifications and the different ways to generate trust among potential customers in the COVID-19 era.

4. Findings

External certifications are particularly useful for independent hotels lacking resources to develop their own quality procedures. In addition, the great heterogeneity among these certifications represents a threat to the industry as it may even confuse the tourist.

5. Conclusions

In view of the importance of certifications in overcoming crises, and the existence of independent hotels and large hotel chains in the Spanish hotel industry, this study makes two major contributions. First, external quality certifications are not useful for all types of hotels and, second, the main paths followed by hotels to generate trust among their potential clients in this health COVID-19 crisis are to comply with health recommendations while continuing to generate customer experiences.

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THE TRANSACTIVE MEMORY SYSTEM FOR IMPROVING INNOVATION CAPABILITY AND REPUTATION: AN ANALYSIS IN THE SPANISH HOTEL SECTOR

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KEYWORDS: Transactive Memory System, Innovation Capability, Online Reputation, Hotel.

I. Objectives

In an era of rapid changing of technological evolution as well as stagnating tourism demand, the level of competition in the hospitality industry has become highly intense. Hoteliers should search new ways to achieve competitive advantages. For example, by using technology, hotel establishments can customise their guests preferences using order histories and consumption patterns such as online booking recommendation systems for better service experiences (Gomezelj, 2016).

An underlying problem in managing technology is based on the fact that knowledge and information are unequally distributed in the organization (Alavi & Leidner, 2001). The availability of information, the location of knowledge and the rules for its use depend on the proper

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development of the so-called transactive memory systems (TMS), referred to shared cognitive structures for the encoding, storage and retrieval of knowledge from different domains (Wegner, 1987). The fact that workers are aware of the distribution of expert knowledge within the organization, and are capable of using knowledge, contributes positively to the development of innovation capabilities (Marques-Quinteiro, Vargas, Eifler, & Curral, 2019).

This paper analyses these factors (knowledge management, transactive memory systems) in the context of the hotel sector, where the contribution of new initiatives and improvement in processes is very important for its sustainability (Datta & Singh, 2018). Internet has also revolutionised hospitality marketing and distribution. Reputation is crucial for the attractiveness of tourism and hospitality products and services, and it is, therefore, a major asset that requires investment and being managed (Berezina, Bilgihan, Cobanoglu, & Okumus, 2016). The analyzed online reputation is represented by TripAdvisor, the world's largest travel site⁵.

Therefore, the purpose of this study is to quantify the effect of TMS and innovation capabilities on the online reputation created through customer reviews. This paper establishes that the development of an optimal TMS will help knowledge to be retained, structured and retrieved for the development of tasks and the application of knowledge in hotel establishments. In addition, it is pointed out that the typical components of an TMS — specialization, credibility and coordination — help to generate work routines that have repercussions on the improvement of the innovation capabilities of the organization. A correct development of a TMS will improve innovation capabilities of a hotel, impacting on customers satisfaction, which will have a positive impact on its reputation.

This paper is organized as follows: Sect. 2 presents theoretical background, followed by methodology and findings in Sects. 3 and 4, respectively. Conclusions are drawn in Sect. 5.

⁵ This platform performs as a community of practice due to the fact that it reunites individuals who are interested in travelling and encourages knowledge sharing among them.

2. Theoretical Background

2.1. *The Effect of the Transactive Memory System on Innovation Capabilities*

As we have previously defined, a TMS is “a shared system that people in relationships develop for encoding, storing, and retrieving information about different substantive domains” (Ren & Argote, 2011, p. 191). Regarding innovation capabilities, the academic research has found that the three dimensions of a TMS (credibility, coordination and specialization) increase the creative capacity of workers (Ali, Wang, & Khan, 2019).

As individuals within the TMS, repeated interactions provide the opportunity for efficiencies in knowledge understanding where knowledge is stored (Zahra, Neubaum, & Hayton, 2020). More specifically, the communication among members creates efficient cognitive “shortcuts” that enable TMS members to know what and where knowledge exists. Thus, the TMS becomes efficient and provides a mechanism that maximizes the coordination of individual knowledge resources, in turn, facilitating innovation (Thayer, Petruzzelli, & McClurg, 2018). Thus, we formulate the following hypothesis:

H₁: The TMS are positively related to the development of innovation capabilities.

2.2. *The Effect of Innovation Capabilities on Reputation*

A factor that decisively influences consumer satisfaction is the quality of products or services. To maintain their competitive advantages, hotel establishments must strive to satisfy customer demands for new and unique services. Service innovation capability is defined as the ability to apply useful knowledge from multiple resources to creative new services (Rayna & Striukova, 2009). Moreover, customers' experiences in the current market scenario depend upon the company's capability to use technology. Simultaneously, customer experience has the capability to affect the reputation of the company (Foroudi,

Melewar, & Gupta, 2014). We thus formulate the following hypothesis:

H₂: The innovation capabilities of hotel establishments are positively related to online reputation

2.3. The Indirect Effect of the Transactive Memory System on Web Reputation through the Development of Innovation Capabilities

As we have already pointed out, the hotel industry is knowledge intensive as a result of the nature of services. Due to the fact that clients tend to be more informed, hotel establishments must be more competitive by maintaining the level of satisfaction and loyalty through the improvement of service quality. To face these challenges, organizations dedicated to hosting services must be able to collect information from the environment and process it, which it requires skills linked to knowledge management (KM) at the individual (employees) and collective level (Shamim, Cang, & Yu, 2017).

A TMS helps companies to generate new knowledge, built from the integration of the members' knowledge (Wegner, 1987). When collaborating, employees implicitly divide the cognitive labor for a task, making that different members become responsible for learning, remembering, and communicating information from different aspects of the team's task (Marques-Quinteiro *et al.*, 2019). In the hospitality industry, members are increasingly sharing their knowledge and experience among themselves to provide new and creative products and services (Rayna & Striukova, 2009).

In line with the previous approach, de Carlos Villamarín, Vila, and Brea (2018) highlight how the evaluation of the accommodation service provided by a hotel is determined by the individual and joint influence of a combination of services or intangible and tangible attributes. Thus, we formulate the following hypothesis:

H₃: The TMS is positively and indirectly related to reputation through innovation capabilities.

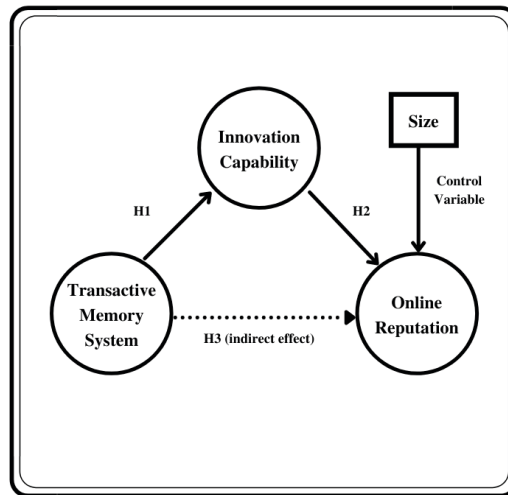


Figure 1 Research model. SOURCE: Own elaboration.

3. Methodology

Our study was developed in a sample of inland hotels in Spain. A questionnaire was designed to collect information on TMS, innovation capabilities and reputation in hotel establishments, open from 2017 to 2018.

The questionnaire was addressed to hotel employees who were responsible for some relevant area in the establishment. A total of 767 inland hotels were contacted. We finally collected responses from 118 hotels, representing 15.38% of the total population under study. The software used to perform the analyses was SmartPLS 3.0 (Ringle, Wende, & Becker, 2015). In general, SEM analysis follows a two-stage approach: (1) measurement model analysis; and (2) structural model analysis.

4. Findings

After carrying out the statistical analyses, the main results of the study are shown in the following table:

Table 2. Paths (directs and indirect effects). SOURCE: Own elaboration.

	β	P Values	Supported/ Not supported
TMS $\rightarrow$ innovation capability (direct effect)	0.590	0.000	H ₁ : Supported
Innovation capability $\rightarrow$ online reputation (direct effect)	0.231	0.002	H ₂ : Supported
TMS $\rightarrow$ innovation capability $\rightarrow$ online reputation (indirect effect)	0.136	0.004	H ₃ : Supported
Size $\rightarrow$ innovation capability (control variable)	0.162	0.008	Supported

Coefficient (β), P (Sig. values $p < 0.05$, one-tailed test)

The structural model shows that all the hypotheses in this research were supported.

5. Conclusions

Given the incessant growth of the online search for tourist services by consumers, the proper management of online corporate reputation becomes a priority issue for companies in this sector.

From the results of the study we highlight three aspects to be developed in favor of good reputational management: 1) First, developing a TMS is highly beneficial for generating innovation capabilities; 2) secondly, the need of generating adequate feed-back and a constant dialogue with the consumer, which forces companies to be more willing to listen to consumers and favor innovation and improvements for users; and 3) finally, a TMS becomes a key tool for improving innovation and, consequently reputation, for which hotel establishments should strengthen brand image and marketing, given the high incidence of recommendations and online reviews on sales and satisfaction, but also as indicators of potential risks.

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UNVEILING RURAL ACCOMMODATIONS' RESILIENCE FACTORS TO COVID-19 PANDEMIC

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KEYWORDS: Factor Analysis, Hospitality, Resilience, Rural Housing, Tourism.

1. Objectives

The objectives of this paper revolve around the following ones. First and foremost, to deep into the knowledge of rural housing resilience within and post the COVID-19 pandemic. For achieving this main objective, tests are necessary to check whether the pre-established dimensions — existing and non-existing in the current literature — conceived by the authors to analyse the study question are sound. Consequently, another aim is to discover the main factors that underlie the ad hoc questionnaire carried out, and match the discovered factors with the ones previously conceived. Plus, an overview of the main characteristics of the sample is sought.

2. Theoretical Background

Before the COVID-19 pandemic, rural tourism was a hot topic within the tourism-related Academia, and many papers were written about

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many aspects of rural tourist accommodation. However, most of these studies are now outdated but much helpful information can still be extracted regarding hospitality as a tool for avoiding depopulation (Fernández-Quero & Navarro-Valverde, 2020) and sustainability (Campón-Cerro *et al.*, 2017).

Among the vast spectrum of issues addressed within these papers, resilience was not a hot topic. However, environmental certifications were very studied (Sánchez-Ollero *et al.*, 2014), so their results might be similar to COVID-19 health protocols, which studies are still in the very beginning (Shrestha & Decosta, 2021). In this context, other aspects such as the perceived risk while travelling during a pandemic might also affect it (Jang *et al.*, 2021; Scuttari *et al.*, 2021). All these — and many more — studies were considered while developing the aforementioned ad hoc questionnaire, from which the data retrieved is used to perform a factor analysis to measure rural accommodation enterprises' resilience during the pandemic.

3. Methodology

As mentioned, throughout 2021, an ad hoc questionnaire was delivered to 2,776 managers of rural accommodation businesses, obtaining 1,794 answers. In this study, the statistical method applied is a factor analysis — besides a descriptive analysis of the sample — to discover whether there are latent factors within the data and to know if they match with the pre-conceived classifications of the questions of the questionnaire.

Besides, the descriptive analysis is run containing the usual measures: minimum, maximum, sum and average values, together with standard deviation, skewness and kurtosis. For each one, if applicable, standard errors are calculated, as well as confidence intervals at 95%.

4. Findings

The results of the factor analysis are very solid. Seven factors are obtained, which explain up to 61.737% of the total variance. From them,

the non-rotated factor matrix offers clear results, but the Varimax rotation retrieves very illustrative ones. These factors mostly coincide with the pre-established categories. That is true for Environmental Behaviour (EB₁ to EB₆), Energy (E₁ to E₄), Waste (W₁ to W₄), Business Performance (BP₁ to BP₄) and COVID Guests (CG₁ to CG₃).

Then, other indicators are divided between factors, but most are within the same one, such as COVID Prevention (CP₁ to CP₃) and Resilience (R₃ to R₅), and the individual loads of the others also have a relative share on them. It must be highlighted the cases of Environmental Behaviour, Energy, Waste, Business Performance and COVID Guests, which capture a whole factor for themselves — factors 5, 1, 4, 7, and 6, respectively. Only Resilience and COVID Prevention share the same ones, but they are almost fully within the same.

Therefore, the questionnaire seems to have been properly designed, and the answers in each category are homogeneous. That has several implications, but two main ones arise. In the first place, the sections are proven to be well defined. Secondly, the demonstration of coherence in the questionnaire and the existence of some sort of correlation between items. Therefore, further analyses can be made based on this study since it proves that the base data has coherence and that the obtained answers are mostly non-random ones.

5. Conclusions

Considering all the above, the results of this piece of work are as follows. First, the sample is adequately described — in the full paper — and helps contextualise the information. Secondly, the results of the test of the pre-established dimensions — through a factor analysis — conceived by the authors to analyse the study question are sound. Therefore, the discovery of the main factors underlying the data from the ad hoc questionnaire is fulfilled. These results are used to match these factors to the previously stated ones, having a positive outcome. Consequently, the objective of providing further knowledge of rural housing resilience within and post-COVID-19 pandemic seems to be fulfilled, and further analyses could be performed from this starting

point. However, the results already contained in this piece of work are useful enough for leading the way in this particular understudied, novel and developing issue.

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THE EFFECTS OF COVID-19 CRISIS ON THE SPANISH HOSPITALITY SECTOR. AN EXPENDITURE-BASED APPROACH

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AND INMACULADA CRESPO-MORÁN²**

KEYWORDS: COVID-19, Economic Crisis, Hospitality, Sustainable Tourism, Tourism Expenditure.

1. Objectives

The objective of this work is to assess how the economic crisis caused by the COVID-19 health pandemic from 2020 to 2022 might affect the hospitality industry in Spain, taking an expenditure approach. Data from the 2008 economic crisis is used to compare and analyse possible outcomes from this situation. In this sense, the catering subindustry is paid special attention, as it is more widespread within the local population for cultural reasons. Thus, identifying the factors that may affect the chances of spending money on leisure is the overall aim of the analyses carried out in this work.

2. Theoretical Background

Yet, a broader view is required to properly analyse the issue. Literature from the prior global economic crisis, which seems the only likely

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comparable striking event in the recent decades (Rodríguez-Antón & Alonso-Almeida, 2020), is added to the up-to-date one. However, some disparities exist (Rodríguez-Canfranc, 2020; Spatt, 2020) as the effects are still palliated by governmental intervention and limited to health issues. Moreover, economic effects might be confused with the ones derived from the war in Ukraine. All in all, these distortions difficult the analysis of the individual issues that affect the expenditure on hospitality and tourism, but the global effects are still there, and so the consequences are not lessened.

The extant literature has taken several approaches to address the consequences of COVID-19 in the economy since the very first moments. Perhaps the most spread has been the estimation of the impacts in particular countries and their comparison (Milani, 2021). More specifically, other authors have paid attention to the consequences that those impacts have had on the hospitality industry (Tomaino *et al.*, 2020). Plus, literature reviews have concurrently arisen attempting to identify knowledge gaps and as checkpoints for the growing literature on the topic (Zielinski & Botero, 2020). Nevertheless, the Spanish case is understudied so we provide relevant data and figures to contribute to a better understanding of it.

Concerning the impacts in hospitality — and likely applicable to the Spanish case — the only one that might be positive is a likely reduction in non-regulated accommodation and peer-to-peer accommodation, giving the chance to better regulate it (Argelich-Comelles, 2020), but current recovery seems to question this statement. Therefore, the likely reversion of gentrification in mass tourism destinations (Alexandri & Janoschka, 2020) seems far from reality in the middle and long term. Thus, despite tourismphobia and gentrification were not under debate during the pandemic, they might come again to the spotlight.

3. Methodology

This work analyses the consequences of the health pandemic on the hospitality industry of Spain, comparing the current data with the 2008

economic crisis one. Data from the National Statistics Institute from several of their own surveys — Economically Active Population Survey, Life Conditions Survey and Household Budget Survey — are used to run a descriptive analysis and a binomial logistic regression. The aim is to identify the chances of a range of variables to influence on the possibility of hospitality expenditure. The sample includes 33,376 individuals and the variables contain aspects as the income — in euros — of the employees, expenditure on spare time and self-care, responsibility on the enterprise, employment status and socioeconomic ones as gender or country of birth.

4. Findings

The results of the binomial logistic regression analysis show some remarkable results concerning the decision-making factors of spending money on catering services. For instance, the enormous influence of the place of birth — being Spain the favourable event in the dichotomous variable — or the residual effect of earning substantially more money. This latter result is encouraging since a drop in the average net income is expected, as it occurred during the previous economic crisis. Consequently, it might be positive for the catering sector, as the decision of spending money on catering services does not seem to be highly influenced by the money an individual has.

Contrarily, there are some results that might be worrying. The probability of monthly spending drops regarding catering services for unemployed individuals. If the unemployment rate increases in the same proportion as it did in the previous global crisis, the consequences would be dramatic. Currently, governmental intervention is keeping the situation somehow stable but if the new labour reform does not avoid layoffs, expenditure may fall. This context is worrying as the inactive population is including temporary-ceased workers in the official statistics and subsidies cannot be kept much longer. However, since health restrictions are almost fully eliminated, steady recovery is observed.

5. Conclusions

In sum, many actions ought to be taken in an endeavour to palliate the impacts of the COVID-19 outbreak, which is causing great harm to the economy and individuals. Yet, adopting a set of actions is not easy, and it profoundly depends on the political party that governs. Indeed, more fragile is the circumstance in Spain, where two political parties — with palpable discrepancies within the financial field — govern together. However, the situation requires extraordinary measures — as it has been during the two years of health restrictions — also in the short and medium-term. Thus, the European Union is leading the recovery process to push all countries out of a likely enormous recession. In Spain, as shown in this piece of work, the measures are focused on avoiding business closures and enhancing employment for the youngest generations but also for the eldest ones, which may have little chances of getting hired again if laid off. In this sense, undereducated middle-aged workers are the ones at a higher risk of it. Lastly, according to the results, the habits in the Spanish culture might strongly influence expenditure on leisure once health restrictions are over. That is the extant situation, so further data might need to be retrieved and the subsequent analyses made.

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COVID-19 AND ITS IMPACT ON TOURISM AND HOTEL BUSINESS. THE CASE OF GEORGIA

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KEYWORDS: Tourism, Hotel Business, COVID-19, Digitalization

1. Objectives

The objective of the paper is to study the negative impact of COVID-19 on the Georgian Tourism sector, hotel business, the chronology of the booking trend and the study and analysis of crisis management mechanisms. What effect does the new coronavirus have on the Touristic Business of Georgia in general and how acted small, medium and large enterprises in a crisis Challenges. Digitalization has spread all over the world and including such a rapidly evolving field as the hotel business. This is not only a novelty, but also a necessity, a special tool in these pandemic conditions, when direct contacts, offline exhibitions, hotel services are strictly limited due to co-regulations.

The main goal of this paper is to compare the travel industries forecast before, during and after Coronavirus periods in Georgian hospitality field. Especially, the Innovative ways hotels were adapting during the pandemic, creative and surprisingly simple ways to adapt and recover, the world experience and Georgia's new approaches during post-pandemic period. There are the kind of innovations that many hotels wanted for years, but they needed investment in technologies, such as Key Digitalization, flexibility safety was the main goals of hotels in

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Georgia. Branded and large hotels are less flexible to changes in environmental conditions, small and medium-sized boutique hotels have more adaptability. We would like to share with you one of the results of our research on an unprecedented case of such adaptation, which has no analogue in the world. This is the company Numa.

2. Theoretical Background

The last couple of years have brought countless challenges for hoteliers all over the world. Before the pandemic the global hotel's market was developing very fast in Georgia, the number of hotels increased, the quality of service becomes closer to international standards and the number of employed in hospitality sector increased, but the pandemic brought crisis in this field and post-pandemic period becomes heavier then we could expect — occupancy rates are down across the world, the labor statistics show that the unemployment rate for workers in the leisure and hospitality industry is at an unprecedented percent.

This paper considers the current economic indicators and research of local market regarding the present conditions of the field in post-pandemic period. We researched which used technologies are transforming the customer experience.

However, it is expected that the hospitality market will recover from the shock all over the world. While hopes were high for the hotels in 2021, things did not turn out quite well as many had hoped. In the paper we discover the statistics of recovery the tourism industry in Georgia and how much time could take Georgian hotel's recovering process, for most middle and small hotels, getting through the next few months is likely to be biggest challenge they face. The hotel's sales do their best to maximize revenue over the next few months.

2.1. *Citations of References*

“Technology encompasses all areas of tourism and should be given special priority in the development of the industry's workforce,” the UN

report said (<https://www.unwto.org/digital-transformation>). “From the analysis of research results it turns out that interviewed 27% of companies in full (100%) had employees Release – Reducing collaboration the lowest rate observed in agriculture, ICT and manufacturing products, And the highest in hotels and restaurants (46%)» (Georgian COVID-19 Government Survey, 2020). “We are building a new road” (<https://numastays.com/our-story>).

3. Methodology

The hotel industry in digital world (Metreveli & Dolidze, 2022); Digital Marketing Dummies (Deiss & Henneberry, 2021); (Hopkins, 2020); (Metreveli, 2018); Measures implemented by the Government of Georgia, report (2020).

4. Findings

The global pandemic and its aftermath have not only halted the development of the tourism industry, but also delayed the expansion and opportunities of hotel expansion in Georgia for a long time.

We need to share European experience, reduce operating costs, simplify booking systems, make marketing communication techniques and costs more efficient and targeted.

Table 3. COVID-19 impact on non-brendal hotel's occupancy. SOURCE: COVID-19 and its impact on the hotel business (Metreveli & Dolidze, 2020).

Date	Avarage Room sold	Occupancy percent
2017	4283	76.74%
2018	4437	79.45%
2019	4242	75.97%
2020	1313	19.53%
Changes	-2929	-56.44%

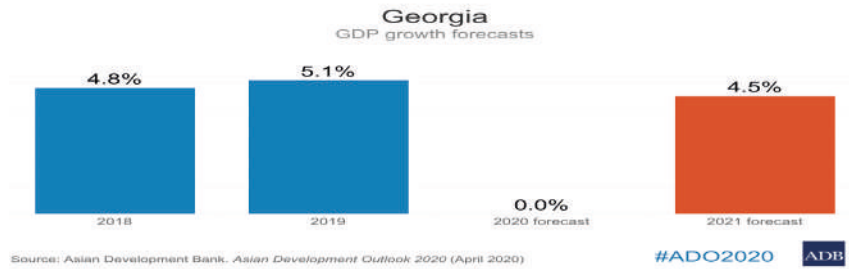


Figure 1. Georgia, GDP growth forecasts. SOURCE: Asian Development Bank. Asian Development Outlook 2020 (April 2020).

5. Conclusions

The global pandemic and its outcomes have not only blocked the development of the tourism industry, but have also postponed growth trends and hotel opportunities in Georgia.

In fact, the country has seen a huge reduction in the number of visitors and the cancellation of bookings has contributed to the crisis developing with astonishing speed; On the other hand, the new reality of insecurity and business continuity uncertainty has had a negative impact on investment in the hotel business. However, Georgia has the potential to be competitive in the global tourism market.

The results of this researches are important in terms of presenting the real picture and we hope Assist the Georgian Tourism industry in the planning process of supporting initiatives.

The results of the research presented in the paper clearly indicate the fact that the country's strategy needs to be reviewed and it is necessary to take into consideration the expected threats and challenges.

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SOCIAL MEDIA AND TOURIST EXPECTATIONS: AN APPLICATION IN INDUSTRIAL TOURISM

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KEYWORDS: Industrial Tourism, Social Media, Expectations, Tourism Experience.

1. Objectives

The main objective of this paper is to analyze how social media influences the formation of tourists' expectations in an industrial tourism site and its comparison with the real experience in a post-COVID era. To this end, a conceptual approach is proposed by developing a theoretical model. It also aims to examine how the tourist experience influences the level of tourist satisfaction regarding their visit and their intention to recommend the visit to other users.

In particular, this paper aims to shed light on several theoretical questions:

- How does the content shared on social media influence the tourist expectations before visiting the site?
- How do pre-visit expectations at the site influence tourists' assessment of their real experience at the site?
- How does the tourist experience influence their level of satisfaction with the visit?

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- How does tourist satisfaction influence their future intention to recommend the visit?

2. Theoretical Background

The effects of the COVID-19 epidemic highlighted the need for an unprecedented restructuring process in the tourism sector, and an opportunity to become a more sustainable, inclusive and resilient sector. In this process, sustainability and innovation are the key pillars (UNWTO).

Firstly, the sector needs to drive new forms of tourism to regenerate and recover the industry in the post-COVID era, especially in local and regional tourist areas implementing a more sustainable model that respects their social and cultural customs (UNWTO).

Secondly, digital transformation has completely changed the interaction between demand and supply in the travel industry by changing the customer journey map (Cuomo *et al.*, 2021). New tourists are more digitally minded and increasingly seek authentic and original experiences. Therefore, the reactivation of tourist destinations involves more personalized promotions, putting the tourist at the center of these promotions.

One of the tourism modalities contributing to the sustainable development of these regions is industrial tourism or post-industrial tourism (Kuzior *et al.*, 2021). Although it is not a relatively new phenomenon (“factory visits have been possible for decades”, Boros *et al.*, 2013: 109), its popularity has increased significantly in recent years due to its contribution to the development in rural areas, which partly slows down the exodus and depopulation of their territories (AOTI). The dynamization of industrial tourism is especially relevant for regions in danger of depopulation, as is the case of “empty Spain”, territories that, thanks to different industrial tourism initiatives, allow them to increase their attractiveness and competitiveness compared to other competing destina-

tions (AOTI). This allows them to preserve their historical heritage, create new jobs and thus improve the quality of life of their inhabitants (Kuzior *et al.*, 2021).

Industrial tourism is considered as a unique way to discover a place and its society. It is a type of tourism that focuses on people who want to know more about the history and culture of the places they visit (Spain.info). In this new type of tourism, new technologies play a very important role (Kuzior *et al.*, 2021) in the promotion of activities and make destinations better known. Due to the COVID-19 pandemic, and to revive tourism, companies have had to focus more on the use of social media platforms to reach new potential tourists (Hysa *et al.*, 2022). Through these platforms, tourists and travelers tend to seek information to find out if what these destinations offer fit their desires and preferences (Marques de Lima *et al.*, 2020).

Thus, the comments, photographs and videos shared by users on social media are able to form an image of the destination in the minds of tourists and create a set of expectations about it (Marques de Lima *et al.*, 2020). However, in many cases tourists' expectations and the actual experience of destinations are not completely the same (Wang *et al.*, 2021). Once they have the experience with the service, they will compare the actual experience with the expectations, which will influence the tourist satisfaction process (Oliver, 1980). If the actual experience at the destination meets expectations or it is superior, the tourist will be satisfied (Narangajavana *et al.*, 2019).

The relationship between expectations and the tourism experience has been analyzed by the academic literature. However, few research studies have explored this relationship in industrial tourism. The existing literature has focused its efforts on analyzing to what extent expectations impact the level of tourist satisfaction or their intention to recommend the destination (Marques de Lima *et al.*, 2020) but without examining how these expectations materialize (Wang *et al.*, 2021), mainly in an industrial tourism context. In parallel, although the literature shows that social media affect tourists' expectations about a tourism destination (Narangajavana *et al.*, 2017), to which social media are more or less significant for tourists to search for information has not been explored. Authors such as Narangajavana *et al.* (2017) explore how the intensity of

social media use influences user motivation to share content and its effect on tourists' expectations. More recently, Marques de Lima *et al.* (2020) analyzes destination image and social media as antecedents on tourist expectations. As a novelty, this study classifies social media relating to three categories: organic social media, induced social media and autonomous social media. The aim is to find out whether, depending on the social media used by the tourist when looking for information, the expectations formed about the industrial tourism site are modified. If what is commented and presented in social media is positive, it is possible that expectations are also positive, and that the opposite effect occurs in the case of negative comments and images (Marques de Lima *et al.*, 2020).

3. Methodology

Despite the growing interest in industrial tourism, this paper aims to shed light on the role of social media in the formation of tourism expectations and their influence on the actual tourism experience. Based on the review of the existing literature through different bibliographic sources, a conceptual model has been elaborated to establish the proposed hypotheses of the variables under the study. To illustrate the identified relationships, a search was elaborated in the following databases: Proquest, Google Scholar, Ebsco-Host and Web of Science. The proposed research methodology suggests a quantitative study to validate the theoretical model. The context to which this study is addressed are several companies in the province of Cuenca that have adopted and implemented different industrial tourism activities. The research hypotheses proposed in this model will be empirically tested by means of scales proposed by previous studies to verify the validity of the theoretical model proposed.

4. Findings

Although industrial tourism has increased its notoriety in academia in recent years, more research is needed, as few studies have investigated

the role of social media in the formation of tourist expectations and the formation of the actual experience in an industrial tourism site. Added to this is the need-to-know theory which online platforms have the greatest impact on tourist expectations. Depending on their importance for the user, the efforts of managers and providers of industrial tourism companies will be directed to one or another platform to reach a greater number of potential tourists. It is hoped, therefore, that this model will provide a greater understanding of the role of social media as tourism promotional tools, in light of the few studies that have analyzed these platforms in the industrial field and their influence on the development of tourism experiences. Significant results are expected to be obtained once the model has been empirically tested.

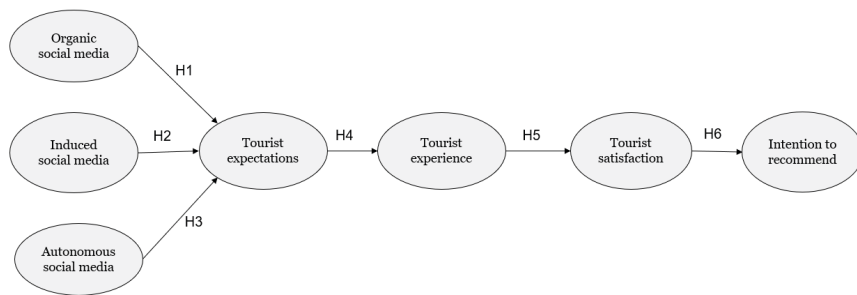


Figure 1. Theoretical model. SOURCE: Own elaboration.

5. Conclusions

Nowadays, industrial tourism is considered a key factor in the restructuring and transformation of tourism in the COVID-19 era. The effects caused by the pandemic have highlighted the need for a change of model towards a more sustainable and innovative tourism, which increases the number of tourists and travelers. Although research on industrial tourism has increased significantly in recent years, there is still a need to delve deeper into the role that social media play in shaping expectations and the tourism experience at an industrial tourism site.

The main contribution of this paper has been to develop a theoretical model grounded in the literature linking variables that have not previously been analyzed in the context of industrial tourism, social media, tourist expectations, tourist experience and tourist satisfaction. While previous studies have identified the importance of social media in shaping the tourist experience, few have focused on examining this relationship in an industrial tourism site. Analyzing the relationship between these variables can help managers and providers of industrial tourism sites to understand how different social media influence the creation of expectations and the actual tourist experience so that they can develop and adapt the right strategies for the site in question to increase tourist satisfaction with the site and their intention to recommend it.

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RESILIENT COLLABORATIVE DECISION-MAKING IN RESEARCH PROJECT IMPLEMENTATION

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KEYWORDS: Risk Management, Critical Path, Design Thinking, Consensus.

1. Objectives

When the first signs that SAR-COV-2 reached Europe and before it was declared as a pandemic, not many researchers in the European research community expected that this would have serious implication for research projects funded by the European Commission. The beginning of 2022 has shown the true consequences are still difficult to measure. This article intends to share the experience of constructing collaborative decision-making environments within a 100% digital research project implementation, without face-to-face project and stakeholder meetings, and discuss what lack of a prospective decision-making and worst-case scenario making at early stage in a project may add to later difficulties in meeting the project's goal and which are the lesson learnt in terms of reaching resilience.

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2. Theoretical Background

Operating in an unstable environment, subject to continuous change and severely affected by restrictions (Mueller & Klein, 2020; Dontu & Gustafson, 2020), significantly altered traditional project management patterns and the usage and impacts of well-suited methods like reaching consensus, and critical path analysis applied for identifying major actions that needed to be taken to enable the successful implementation, while maintaining quality, and observing deadlines (Dwyer, 2016). However, it is not the risk, quality and managements methods we use as tools that are the main cause of deviation, increasing risk of failing to deliver project deliveries and reach the objectives of a research project, but far more it seems to have been the inability to inteprete and understand the long time horizon, and above all, the uncertainty of such an event, that we would need to take into account and the relevance of organisational transition (Dwivedi *et al.*, 2020).

3. Methodology

The research is based on a single case study that was carried out in an ERASMUS+ project. The project has 7 partners from 6 countries. While some of the project organisations, as well as the management team have been working together in several previous projects with different roles, the consortium as such is new with little common experience. More critical, the project involves mostly new external stakeholders, which partners had reduced prior interactions with. The project just started as the pandemic reached the European Union. According to (Kammerloh *et al.*, 2021) trust and common experience are two key elements to get collaboration working, both during and after a project, but also a pre-requisite to be able to handle unexpected and unpredictable events in an efficient matter.

An empirical single case study was selected as the methodological approach for this research (Zafarzadeh *et al.*, 2019). The case study method facilitated an in-depth understanding of the challenges caused by the decisions concerning topics like project meetings, collaboration,

cooperation with external stakeholder, and most important collaborative decision-making and reaching consensus, while working 100% digital. According to Meredith (1998), a case study can be considered as an appropriate method when the amount of unknown knowledge is considerable. Because the number of empirical studies regarding our topic are limited, a case study was concluded to be an appropriate method.

4. Findings

The case study aimed to identify and analyze the impact of the pandemic on collaborative decision-making patterns and methods. The management team has decades of experience in working in collaborative research projects. A focus has thus been put on investigating to what extent this experience had helped to overcome challenges caused by the pandemic situation, like the impact of the impossibility to meet face-to-face had on the implementation of the project management activities, and the interaction with external stakeholders. We have investigated how the lack of any physical meeting, the lack of relation between different stakeholders representing not only the development team, but also future user of the product has impacted on the requirements analysis.

Furthermore, the design of a game authoring tool for users with disabilities in a 100% digital working environment, where team member could not participate in physical meetings, and could not organize face-to-face workshops and the relevance of trust in the decision-making process was another focus. Finally, the last topic was to critically analyze if the decision we made retro-perspective should have been made differently, based on the information the decision makers had at the point of decision. The study has revealed how challenging it has been to meet all stakeholder requirements, as interactions with direct and indirect target groups has been carried out exclusively online during the 1st year of the project implementation. Requirements elicitation has required special attention and adoption of new practices and tools to support prioritizing and balancing demands from both project partners and target groups.

The paper presents a synthesis of the lessons learnt, highlighting methods for tackling digital collaborative work and decision-making across project management and design teams, as well as stakeholder groups, and reaching resilience in digital collaborative decision-making by applying the design thinking methodology.

5. Conclusions

The case study has revealed the critical actions that need to be taken for achieving resilience in 100% digital project implementation scenarios, and the methods that can be applied to overcome long-term challenges, and bottlenecks. The paper showcases the use of the design thinking methodology as a method to reach consensus in digital collaborative decision-making settings (Gheorghe et al, 2021) to support the design phase of a game authoring tool for users with disabilities.

In line with Kammerloh *et al.* (2021) that have identified different factors influencing the transformation from a temporarily (virtual) organization towards a long-term networked collaboration, the case study has shown that long-term collaboration and engagement depends very much on trust factors like reliability, and response time. In this case study, we have seen that in terms of project risk and quality management, trust is required, but also a source of misjudgement. Furthermore, the analysis of the results shows that the time factor and the selection of right scenario parameters have a much higher influence on the outcome and on suitable risk mitigation strategies than previous common experience. The provided guideline has therefore focused on what the authors consider to be key factors for future improvement. In a next step we intend to apply the same form of analysis on different types of research projects currently running as well as on projects from the past which were sub-optimal regarding collaborative project and risk management.

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HOW COVID-19 INFLUENCED TECHNOLOGICAL CHANGES IN SMES IN A TRANSITIONAL COUNTRY

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KEYWORDS: SMEs, Digital Transformation, Transitional Country.

I. Objectives

The global pandemic crisis due to the virus COVID-19 has increased the speed of digital transformation for small and medium-sized enterprises (SMEs) at a global level. The aim of this paper is to investigate the technological changes on SMEs influenced by the COVID-19 pandemic in the Republic of North Macedonia and the major challenges and benefits caused with their implementation. The research objectives are:

- Identifying the current state of digital technologies in SMEs in the Republic of North Macedonia;
- Identifying how technology adaptation could help operation of SMEs during COVID-19 pandemic;
- Exploring the major challenges and benefits SMEs face with the application of the technologies of the Industry 4.0.

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2. Theoretical Background

While raising concerns about the future of enterprises, they need to embrace and implement new technologies. In order to compete with their rivals, enterprises need to identify moderating factors which influence digital transformation. Obviously is that SMEs are recognizing and understanding the need of adapting to the digital transformation.

The rapid development of new digital equipment is inevitable and will lead to transformation the whole economy.

The focus of this article is in raising attention of examining the essential changes in technology influenced by COVID-19 pandemic.

Small and medium-sized enterprises need to be mindful and mitigate impacts on technological changes.

The COVID-19 pandemic has emphasized the need for a deeper integration of digital technology among SMEs (World Economic Forum, 2021: 4). At the end of 2019, a novel coronavirus disease (COVID-19) broke out suddenly and spread rapidly to become a global pandemic. The COVID-19 pandemic became a wake-up call for the companies that had not implemented Industry 4.0 (World Economic Forum, 2021: 20).

This health crisis has posed great challenges for the survival and development of small and medium sized enterprises (Guo *et al.*, 2020). Significantly, SMEs interest has grown considerably in 2021 compared to 2019. This can be explained partially by the move to remote working in the past year. These technologies are crucial in supporting monitoring, data collection and collaboration among employees while working away from the office or factory (World Economic Forum, 2021: 9). Digitalization is increasingly useful for small and medium enterprises to improve efficiency and competitiveness. Although the prevailing wisdom is that COVID-19 has ushered in a pivot to digitalization, there remain many challenges that SMEs face in doing so (Tong, Gong, 2020). This increases the urgency for SMEs to embrace digital technology to adapt to the new reality, while attracting talent and remaining competitive (World Economic Forum, 2021: 6). Understanding the current level of automation and digitalization of SMEs enables us to recognize the potential for further digitalization and the benefits this

would unlock in the sector (World Economic Forum, 2021: 6). By using cloud technology, Big Data and analytic systems, SMEs can benefit from getting actionable insights out of their data. This basically means they can shift from reactive to predictive maintenance, identify the areas for improvements, minimize waste and intensify yield (Lugovsky, 2021). This pandemic has resulted in increased digital transformation, changes in customer behavior and the managerial and technological knowledge gap to address them (Klein and Todesco, 2021).

3. Methodology

The research will be conducted using questionnaire that is distributed to the SMEs' CEO in different industries in the Republic of North Macedonia. The data will be extracted, transformed (where needed), loaded by the use of the Power BI tool, and the same tool will be used for their modeling and analysis. The artificial intelligence visualization tools in Power BI (key influencers and decomposition trees) will be used for regression analysis and data distribution, respectively.

4. Findings

The findings from the research will be presented and interpreted in the conference (the research is still ongoing).

5. Conclusions

This paper will contribute by identifying and presenting the most important technological changes on SMEs in the Republic of North Macedonia.

The findings obtained from this paper will be valuable for the economic policy makers and for the priorities of small and medium enterprises in the digital transition. The results from our analysis will raise

awareness of technology's role as set of tools to adapt during the pandemic.

The limitation of the study is the consideration only of one transitional country, but in the future research it is planned to increase the sample of similar countries and to investigate what drives the financial performance of SMEs.

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