ICEM

International Conference on
Entrepreneurial Motivation

Dream, Risk, Achieve: The Spirit of Entrepreneurship

VNIVERSITAT DE VALÈNCIA
Facultat d' Economia

GENERALITAT VALENCIANA

IV ICEM Conference · October 21-22, 2024

Fourth edition published by RESOCEM · Research Society on Entrepreneurial Motivation, 2024
ISBN: 978-84-09-68396-3

ACKNOWLEDGEMENTS

Funding from Proyecto Emergente CIGE/2023/91
'EmprendeComunidad: Transformando Realidades con Economía Social'
by Generalitat Valenciana is greatly acknowledge.

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IMPACT OF SUSTAINABLE FINANCE AND CLIMATE POLICY ON CHANGES IN PRODUCT OFFERINGS AND CREDIT EXPOSURES IN THE EU BANKING SECTORS

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Abstract

Objective: The aim of the study is to present the impact of sustainability regulation on changes in banks' product offerings and credit exposure management in EU countries, with a focus on the banking sector in Poland.

Research design and methods: Sustainable finance refers to the process of integrating environmental, social, and governance (ESG) considerations into investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects. In the European Union (EU), sustainable finance aims to support economic growth while reducing environmental pressures to help achieve the climate and environmental objectives of the European Green Deal, considering social and governance aspects. Sustainable finance also includes transparency about the risks associated with ESG factors that may affect the financial system and mitigating such risks through the appropriate management of financial and corporate entities.

Sustainable finance aims to achieve the policy objectives of the European Green Deal (Paris Agreement, **EU/2018/842);** UNFCCC, 2015), as well as the EU's international commitments on climate goals and sustainable development. This is achieved by channeling private investment towards the transition towards a climate-neutral, climate-resilient, resource-efficient and fair economy, complementing public funds. The banking sector and its lending policy decisions play an important role in green financing and financing the transition. Ponieważ od decyzji, które projekty i sektory są finansowane (zielone czy brudne) zależą efekty transformacji w przechodzeniu do gospodarki o zerowej emisji. Moreover, the European Climate Law is one of the elements of the European Green Deal and is intended to help implement the goal of achieving climate neutrality by 2050 by the EU.

The study presents key regulations in the field of sustainable finance, including environmental, social policy and corporate governance (ESG) risks, non-financial reporting and disclosures by financial institutions, and a review of literature and practices of financial institutions.

In the field of monitoring climate risk in enterprises (financial and non-financial), legal

regulations are of significant importance, i.e.: the EU Taxonomy (EU, 2020/852), the Non-Financial Reporting Directive (NFRD, 2014/95/EU), the Sustainable Finance Disclosure Regulation (SFRD, 2019/2088), the Corporate Sustainability Reporting Directive (CSRD, UE/2022/2464), the Corporate Sustainability Due Diligence Directive (CSDD, EU/ 2024/1760) and the European Sustainability Reporting Standards (ESRS, C/2023/5303).

Changes introduced in connection with the implementation of Basel IV in the EU (Regulation of the European Parliament and of the Council 75/2013; Directive of the European Parliament and of the Council 2013/36/UE) required banks to integrate climate-related risks into their risk management system. Climate risk, and more broadly ESG (*environmental, social and corporate)* risk, is also treated as a challenge to financial stability, including physical risk *(*includes economic costs and financial losses resulting from extreme weather events) and transition risk *(related to the expenditure of entities on the transition towards* a low-carbon development path). It is worth noting that in the case of the analysis of the loan portfolio, banks estimate exposure to the risk of transformation.

In the literature on the subject, climate risk is treated both broadly and narrowly. In a broad sense, as an ESG element (Bressan et al., 2024; Alessi, L. 2024; Adrian et al., 2022). As well as within a narrow approach, e.g. analysis of changes in the value of investment portfolios (Alessi, 2022; OECD, 2017). In the context of the scope of this study, research on how to measure relevant climate sectors is the most relevant contributor (Battiston et al., 2022; Battiston, 2020; Battiston, et al., 2019). However, banks are also looking for additional methods of quantifying climate risk, which are presented in the article based on complementary quantification methods and considering the specificity of financial institutions.

To assess changes in the product offer, the empirical part analyses changes in the offer of active and passive products offered by the three largest banks in the EU, i.e. BNP Paribas (France), Banco Santander (Spain) and Deutsche Bank (Germany) in the years 2013-2024. Moreover, the study uses three methods to assess banks' credit exposures in Polish banking sector: 1) to determine the exposures of climate-policy relevant sectors (CPRS), 2) to calculate the average emission factor of loan portfolios by divisions of the Polish economy published by Eurostat, and 3) to measure banks' credit exposures to companies whose greenhouse gas emissions are covered by the EU ETS.

Results: The research shows the wide-ranging impact of sustainability regulation on changes in governance systems, operational and value-creation strategies towards a low-carbon economy. The evolution of banks' strategies is mainly concerned with integrating ESG risks into existing risk management systems, taking adaptation measures in process and organisational dimensions, using ESG strategies as a competitive tool, reducing the financial exposure of dirty industries to RES projects and building a green customer profile.

Banks are gradually changing their product offerings, including the financing of transformation and green investments. The banks' new product offerings focus on both adapted loans and debt instruments for sustainable development purposes (in the field of renewable energy sources, ecological transport, construction, other pro-ecological). Analyses three banks provide a wide range of services e.g. green, sustainability and SDG bonds.

Banks are managing their loan portfolios towards reducing credit exposures in so-called dirty industries (mining and quarrying, transport, construction) and increasing the share of loans financing so-called green industries in RES projects. The performance of exposures in the Polish banking sector indicates a moderate but significant level of exposures to carbon-intensive sectors characterised by elevated transition risk.

Implications/Recommendations: Since the legal regulations in the field of sustainable development (financing and climate policy) have a comprehensive impact on the entire operations of banks, decisive action is required by bank management boards in many areas: process, risk management, product, organizational, etc.

In the analysis scope of the product offer (active and passive) as well as the quantification of credit exposures, the processes of changing banks' loan portfolios will need to be accompanied by corresponding changes in equity and funds. Banks with a high exposure to transition risk will need to manage it accordingly, by building up adequate provisions and capital buffers in case the risk materialises.

Contribution: Presentation of the impact of regulations in the field of sustainable finance and climate policy on changes in internal management, strategies, product offer of banks in the EU and estimation of credit exposures sensitive to transition risk in the Polish commercial banking sector.

Keywords: *sustainability, ESG, climate policy, credit exposures, banks, EU*

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CORPORATE SOCIAL RESPONSIBILITY IN *CHAEBOLS*: MAPPING THE TRANSFORMATION ACROSS DECADES

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Abstract

The notion of sustainable development, as articulated in the 1987 Brundtland Report by the United Nations' World Commission on Environment and Development, highlights humanity's potential to pursue development that satisfies present needs without jeopardizing the ability of future generations to do the same (Brundtland, 1987). This framework recognizes the limitations that existing technologies and social structures impose on environmental resources and the biosphere's capacity to endure human activity (Brundtland, 1987, p. 16). It emphasizes that authentic sustainable development must holistically address the interconnected dimensions of economic, environmental, and social sustainability. Inevitably, the concept of sustainable development has impacted all global economies, particularly those that are advanced and those that have rapidly transitioned from extreme poverty to becoming global economic powers, such as South Korea.

In this scenario, the South Korean economy is predominantly characterized and supported by large family-owned conglomerates, known as *Chaebols*, which have been instrumental in the country's economic growth. Since the mid-1960s, *Chaebols* have cultivated strong political connections and have been pivotal in South Korea's transformation from an agrarian society to an industrial powerhouse. A *Chaebol* is a vast industrial conglomerate, typically controlled by an individual or family. Currently, there are approximately 25 *Chaebols* in South Korea, which collectively contribute to 84.3% of the nation's GDP, while employing only about 10% of the workforce. Among the most prominent of these are Samsung, Hyundai, LG, and SK Group, among others.

Chaebols, which continue to exert considerable economic influence in South Korea, have faced significant allegations of corruption and have been the subject of intense criticism from the Korean public (Andolfo, 2018). Despite their pivotal role in Korea's industrialization, it has often been observed that Chaebol families enjoy substantial advantages over other businesses, leading to frequent media scrutiny and disapproval

(Lee et al., 2019). This scrutiny has contributed to the erosion of the reputation and credibility of these conglomerates, fostering negative public perceptions. In response to these challenges, Chaebols have implemented corporate social responsibility (CSR) policies within their operations to align with global entrepreneurial standards, such as those promoted by initiatives like Agenda 2030.

Although a substantial body of literature delineates the concept of CSR (Crane et al., 2008; Lockett et al., 2006), the notion can generally be understood as a self-regulating business model that enables a company to remain socially accountable to itself, its stakeholders, and the broader public. It encapsulates the societal obligations and outcomes associated with business success, encompassing clearly defined and widely shared policies and practices that reflect a company's commitment to contributing to the broader societal good. Through the practice of CSR, companies can remain mindful of their impact on all dimensions of society, including economic, social, and environmental aspects (Kitzmueller & Shimshack, 2012; Lee et al., 2019).

Thus, CSR extends beyond mere compliance with legal mandates, encompassing proactive initiatives aimed at fostering a better society and promoting greater environmental stewardship. It includes a broad spectrum of activities, such as collaborating with local communities, implementing environmentally sustainable practices, and upholding ethical labor standards. Globally, CSR has gained significant traction as stakeholders increasingly demand that businesses operate with transparency, ethical integrity, and accountability for their societal impacts (Ryu & Chae, 2022).

Hence, the relationship between Chaebols and CSR offers a distinctive lens through which to examine business practices within these enterprises. Specifically, analyzing the connection between Chaebols and CSR sheds light on how these powerful conglomerates fulfill their social obligations, the impacts of their actions, and the ethical considerations involved (Lee et al., 2019). It is therefore particularly compelling to explore how these organizations seek to protect and enhance their brand through virtuous behaviors, including those related to CSR.

Research question. This analysis proposes to examine the CSR of *Chaebols* through a study of current literature to build a framework for understanding how this type of business has included CSR choices and actions as a lever to protect their reputation and/or family name. More specifically, this research aims to address the following research questions:

RQ1: *What has been the historical trajectory of Chaebols in implementing CSR policies?*
RQ2: *Has there been an improvement in brand perception or corporate reputation during this historical evolution of CSR practices adoption?*

Methodology. To address the research questions, this study conducts a review of the specialized literature on *Chaebols* and CSR. Additionally, data triangulation is employed through the collection of information from the web (e.g., corporate websites, report publications, dissemination of social balance sheets, etc.). This will be followed by a survey administered to the Korean population (currently ongoing).

Results. The data will illustrate the evolution of CSR practices adopted by the *Chaebols* and the external perception of these practices by the population.

Implications. The implications of this analysis are twofold. From a theoretical perspective, it contributes to the expansion of the entrepreneurial literature on *Chaebols* with a specific focus on CSR. From a managerial perspective, the evolution and external perception will provide valuable insights for the *Chaebols* themselves, regarding whether there has been an improvement in their reputation and how, if at all, they might need to modify their CSR practices.

Keywords: Corporate Social Responsibility (CSR), Chaebols, South Korea, brand, reputation.

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THE INTERSECTION OF *DIFFERENTIATION OF SELF* AND PSYCHOLOGICAL WELLBEING IN ENTREPRENEURIAL DEVELOPMENT: INSIGHTS FROM A CROSS-CULTURAL STUDY

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Abstract

Entrepreneurial intentions are profoundly shaped by the cultural and contextual factors of a given country, which in turn define the entrepreneurial archetypes and the perceived characteristics of successful entrepreneurs. The influence of role models plays a crucial role in this process, guiding young individuals' perceptions and aspirations toward entrepreneurship. These factors interact closely with personal characteristics, including family education, cultural background, and individual traits, all of which collectively contribute to the development of entrepreneurial intentions from an early age (Fayolle & Liñán, 2014; Krueger Jr et al., 2000; Obschonka & Stuetzer, 2017).

About individual traits, it falls under psychological aspects the concept of the "*differentiation of the self*" rooted in Bowen's theory (Bowen, 1978). Differentiation of self refers to an individual's ability to maintain their sense of identity and emotional independence while navigating close relationships and social pressures with its original family. In the realm of entrepreneurship, this ability is crucial for managing the inherent stresses and uncertainties of business development, and it is especially true within – but not only - family businesses (Chua et al., 1999; Rovelli et al., 2022). Thus, the focus on the psychological nature and development of the individual characterizes for potential entrepreneur became central to contemporary entrepreneurship research and for further promoting initiatives (Obschonka & Stuetzer, 2017).

More in depth, the differentiation of self is influenced not only by relationships and the upbringing received from the family of origin, or from caregivers during the developmental process, but also by the cultural context of the country in which one is raised, underling that many levels of differentiation exist.

Bowen's (1978) family systems theory remains one of the most comprehensive frameworks for understanding family dynamics and emotional processes across generations, with the construct of differentiation of self often regarded as the cornerstone of this theory (Lee & Johnson, 2017). Many researchers view differentiation of self as a universal developmental goal, where each individual must learn to balance the need for autonomy with the capacity to form and sustain intimate connections with others (Knerr & Bartle-Haring, 2010).

Bowen's theory emphasizes the universality of the differentiation of self processes, highlighting its critical role in psychological wellbeing and personal development. However, it is essential to acknowledge that the characteristics Bowen associated with varying levels of differentiation, including what is deemed more differentiated or psychologically healthy, can manifest differently across cultures. Autonomy and intimacy, core aspects of differentiation, are profoundly influenced by cultural contexts and can vary significantly in individualistic, Mediterranean, and collectivistic societies.

Kerr and Bowen (1988) argued that individuals with a highly differentiated self tend to exhibit better psychological adjustment and more effective coping in social interactions and relationships. Conversely, individuals with a less differentiated self are more prone to relational anxiety, less effective functioning in stressful situations, and a higher likelihood of experiencing physiological and psychological symptoms in social contexts. Although Bowen emphasized the universality of the differentiation of self construct, further research is needed to explore its relationship with culture (Lampis et al., 2020; Manzi et al., 2006).

Research question. This research seeks to analyze the similarities and differences between a Mediterranean country, Italy, and a Confucian-based collectivist society, South Korea, in the context of the relationship between levels of self-differentiation and psychological well-being, and their potential impact on entrepreneurial development. The study addresses the following research questions:

RQ1: *Are there cultural differences in self-differentiation between Italian and Korean individuals?*
RQ2: *If such differences exist, how might they influence entrepreneurial development?*

Methodology. To address the research questions, this study begins with a comprehensive literature review, focusing on Bowen's concept of differentiation of self across diverse cultural contexts and the existing literature on entrepreneurship development. Following this, the study undertakes an empirical analysis in Italy and South Korea, examining a sample of 352 young adults to determine whether cultural differences in self-differentiation exist between these two countries.

Results. The data revealed that higher levels of differentiation of self predict lower levels of psychological distress among both Italian and Korean participants. However, the dimension of fusion with others appears to serve a protective function among Korean young adults.

Implications. The implications of this study are both theoretical and practical. From a theoretical perspective, this work contributes to the psychological literature by

introducing a novel analysis comparing two countries, Italy and South Korea, a comparison that had not yet been conducted. It also enriches the literature on entrepreneurship by examining the effects of differentiation of self on entrepreneurship development considering the cultural nuances in understanding differentiation and psychological wellbeing. Practically, the findings can be highly valuable for consultants and managers, particularly—but not exclusively—in family-owned businesses.

Keywords: Bowen theory, differentiation of self, cross-cultural study, entrepreneurial development, collectivistic and mediterranean countries.

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IMPACT OF CORPORATE SOCIAL RESPONSIBILITY ON SMALL BUSINESSES PROFITABILITY: A HIERARCHICAL LINEAR MODEL

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Keywords: Corporate Social Responsibility, Small Businesses, Hierarchical Linear Model (HLM), Objective data

Extended Abstract

This study explores if efforts made by small business owners on corporate social responsibility (CSR) positively affect the levels of profitability of their businesses. This study aims to address the unravel question: *Do CSR efforts enhance small business' profits?* In order to achieve a meticulous response to this question, this research uses Hierarchical Linear Model (HLM) to a analyze a unique dataset that pairs four-year profit reports of 132 firms and responses from the CEO of those firms in relation to CSR efforts. The HLM model includes profits' objective data analyzed against CSR survey data. Since literature on CSR is inconclusive about its impact on firm's profits, this study aims to provide factual evidence on this matter in the context of small businesses.

Studies that investigate the relationship between CSR and business profits report mixed findings. A few studies report that CSR has a positive impact on profits (López-Arceiz et al.,2018; Brik et al., 2011; Choi & Jung, 2008; Beurden & Gossling, 2008; Wu, 2006). Meanwhile, other studies found a negative effect (Soana, 2011; Brammer et al., 2006; Griffin & Mahon, 1997; Wright & Ferris,1997; Fogler & Nutt, 1975). Mediator factors that explain a positive effect constitute perceived CSR-driven utility (Bhardwaj et al., 2018), CSR operationalization (Wang et al., 2015) and organizational reputation (Orlitzky et al., 2003). Mediator factors that explain a negative effect include consumer expectations (Bhardwaj et al., 2018), environmental CSR investments (Makni et al., 2009) and social CSR investments (Chon et al., 2011). Interestingly, a recent meta-analysis reports a very small correlation between CSR and financial performance (Hirsh et al., 2023) which means that there could be no relationship.

Method

HLM is a complex form of ordinary least squares (OLS) regression that is used to analyze variance in the outcome variables when the predictor variables are at varying hierarchical levels and the data follows a nested structure. The HLM can better capture how CSR efforts permeate through the firm and further impact profitability. In this study we use two-level data. To test these effects, we use HLM Software (Raudenbush and Bryk 2002). Level-2 data constitutes CSR efforts at their companies. This data was collected through

surveying CEO members of the Small Business Chamber of Commerce. They were asked how actively involved the firm is in CSR. The score of a 7-item scale for reach of the 132 firms included in the sample represents the main predictor. Level-1 profit data was collected through public records of the businesses participating in the survey. As each CEO reported the company name and tax id, we linked each response to the profit reported for the past four years. Additional information regarding the characteristics of small businesses were retrieved from the firms and used as control variables in the model. These variables include the type of business structure (categorized as 1, Public Limited Company; 2, Simplified Joint Stock Company; 3, Nonprofit Organization, 4; 5, Sole proprietorship)), the industry sector (categorized as 1, Food; 2, Construction; 3, Metalworking; 4, Events and Services; 5, Graphic Arts; 6, Textile; 7, Woodworking; 8, Chemical; 9, Other), their business activity (categorized as 1, Retailer; 2, Contractor; 3, Distribution/Sales; 4, Professional Services; 5, Service Provider; 6, Publishing/Broadcasting; 7, Consultant; 8, Wholesaler; 9, Carrier/Transit or Transporter; 10, Other)), and the proportion of women that are part of their workforce. Table 1 | illustrates the CSR scale and reliability score. Table 2 shows the descriptive statistics for the measurement score and profits, along with a correlation matrix of all the variables included in the model.

Table 1 Construct measures and reliability scores

Measures	**Cronbach Alpha**
CSR "The company has clearly defined social and environmental objectives". "The company regularly measures and reports social and environmental performance." "Managers and employees receive training and education in social and environmental responsibility." " Management always considers social and environmental impacts when making important business decisions."	0.892

Table 2. Descriptive Statistics and Correlations

	Variables	**Mean**	**SD**	**1**	**2**
1	CSR	5.39	1.18	1	
2	Profits	$ 187,085.20	4797.81	0.13	1

Equation 1 illustrates the HLM model.

Level-1 $SBprofits_{ij} = \beta_{0j} + r_{ij}$

Level-2 $\beta_{0j} = \gamma_{00} + \gamma_{01}*(CSRscore_j) + \gamma_{02}*(Structure_j) + \gamma_{03}*(Sector_j) + \gamma_{04}*(Activity_j) + \gamma_{05}*(Females_j) + u_{0j}$

Before running the HLM model, we carefully analyzed the psychometric properties of all the variables. Table 1 shows the descriptive statistics and reliability scores. Then, we mean-centered all variables when including in the HLM model.

Hypothesis

We predict that CSR efforts positively impact the profits earned by small businesses.

Results

Null HLM model

Before adding all the predictors into the HLM model, a null model is necessary to verify and account for the variance components at both within-group (level-1) and between-group (level-2). (See Raudenbush & Bryk, 2002). This initial analysis identified the variability of CSR efforts across both levels in the HLM model, which is crucial for understanding its influence on firms' profits. To conduct this preliminary analysis, an HLM model was run without any Level 1 or Level 2 variables. Results highlight a statistically significant intercept (β_{0j} = 0.852; p < .001) and a good goodness of fit (deviance = 13,088.36). These results grants the inclusion of predictors at Level 2 (i.e., CSR)0702 and signals that CSR efforts at Level 2 is influencing profits generated at Level 1.

Main effects of CSR Efforts

Table 3 presents the results of the full HLM model. CSR (y_{05} = 53,026.96; p < .05) is shown to have a crossover effect on firms' profits. This indicates CSR efforts positively impact the profits generated by small businesses and it also represents evidence that such goodwill efforts are crucial for enhancing the financial performance of small firms. The model is robust as it has a suitable goodness-of-fit score (deviance = 13,088.36). The HLM results also show a statistically significant intercept (b_{0j} = 192,457.56; p < .001) Model 2 shows that none of the control variables also has a significant effect on profits generated by an entrepreneurship.

Table 3 - Main Effect Results HLM regression analysis

Variables	**Null Model**			**Full Model (Unstandardized Coefficient)**				
				Patient's Perceived Wellbeing				
Model	Estimate	Standard Error	*p*-value	Coefficient	Standard Error	*t*-ratio	Approx. *d.f.*	*p*-value
For INTERCEPT1 (β_0)								
INTERCEPT2 (γ_{00})	192457.56	42461.68	<0.001	192457.56	42461.68	4.533	126	<0.001
CSR (γ_{01})				53026.95	25013.35	2.120	126	0.036
STRUCTURE (γ_{02})				-35416.35	31605.20	-1.121	126	0.265
SECTOR (γ_{03})				-17003.61	15396.50	-1.104	126	0.272
ACTIVITY (γ_{04})				-3732.22	14818.67	-0.252	126	0.802
FEMMAJ (γ_{05})				-160502.36	62145.50	-2.583	126	0.011

Discussion

Findings highlight that CSR practices have a positive impact on the financial performance of small firms, as CEO's involvement and firm's efforts in CSR activities lead to increases in profitability. These results match existing literature that has also proposed that CSR can improve financial performance (Okafor et al., 2021; Qomariah & Satoto, 2021). Thus, CSR should not be viewed as an expenditure, but rather as a type of investment and even a form of management strategy that can drive up overall financial performance and generate value to a firm (Cho et al., 2019). For small businesses, CSR efforts can spark a series of beneficial consequences including motivating and retaining the current workforce, as well as being attractive for potential employees, or generating customer attraction for potential buyers/users of service, forming a loyal customerbase and improving social reputation (Sweeney, 2009). The positive outcome of this research also suggests that by integrating CSR in their practices, small businesses can benefit by contributing to long-term sustainably as business objectives align with social and environmental responsibilities, consequently enhancing profitability and corporate resilience (Aguinis & Glavas, 2012).

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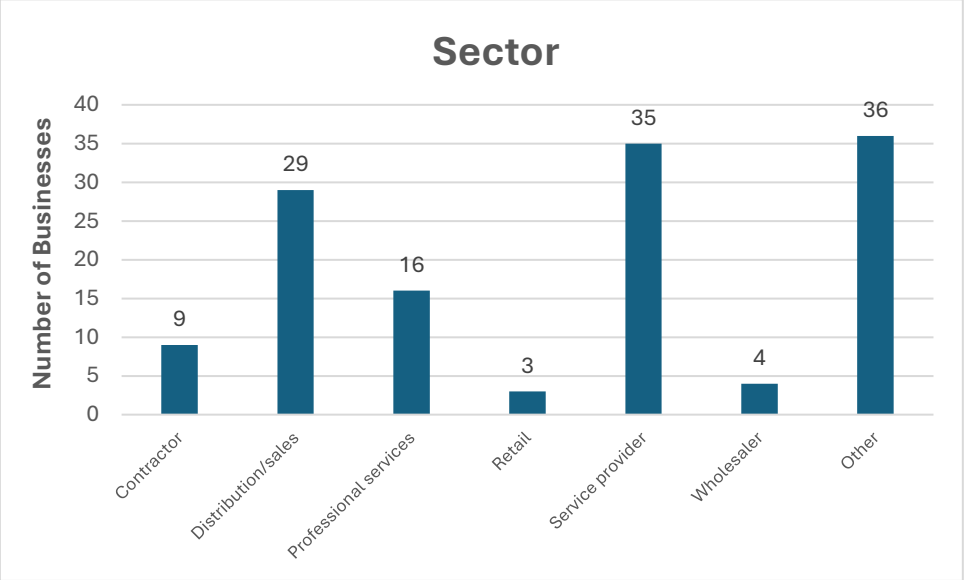
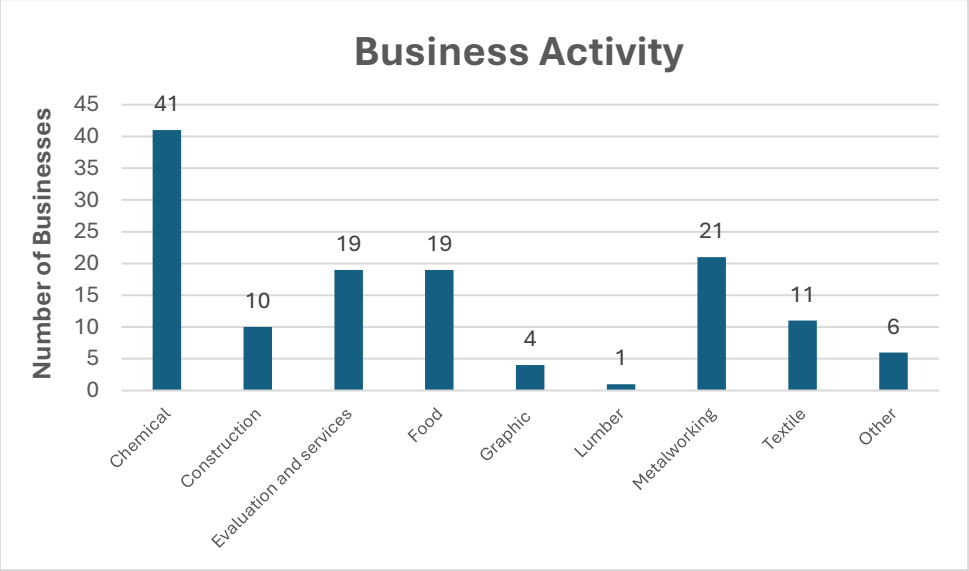
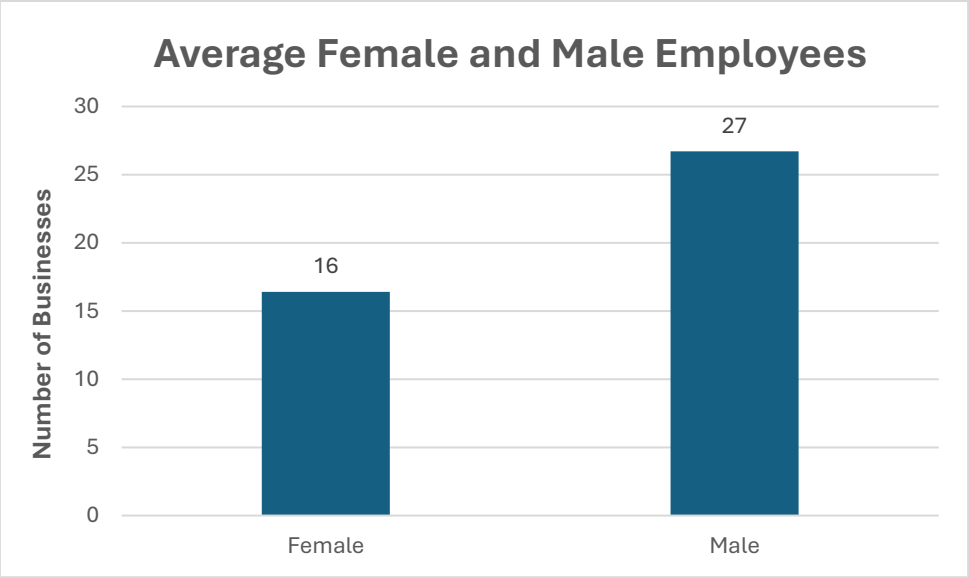
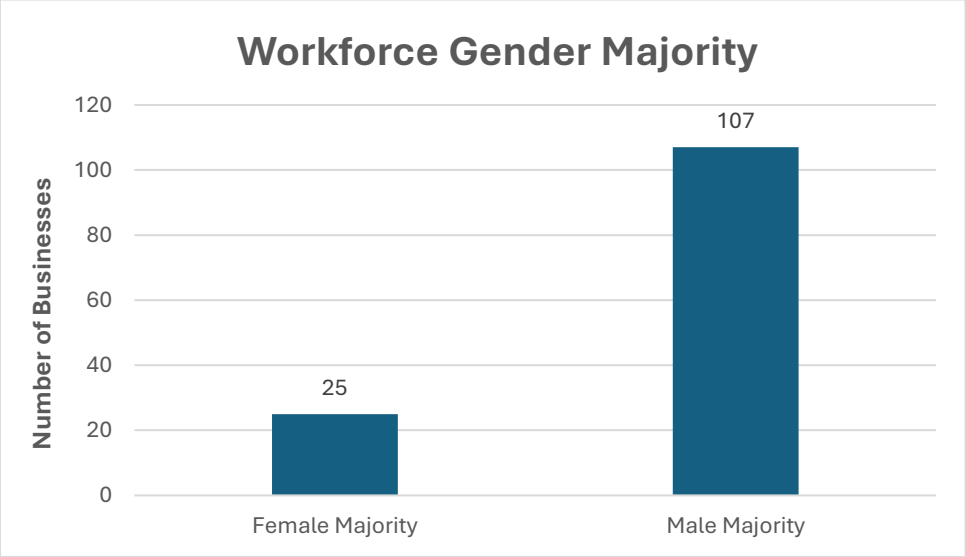
Appendix






Average Female and Male Employees
Number of Businesses
30
25
20
15
10
5
0
16
27
Female
Male


Workforce Gender Majority
Number of Businesses
120
100
80
60
40
20
0
25
107
Female Majority
Male Majority

UNITED WE STAND, DIVIDED WE FALL: THE CASE STUDY OF THE GROWTH OF LANTEGI BATUAK

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Abstract

Nowadays, firms usually develop business models that effectively integrate both sustainability and social responsibility (Chehimi and Naro, 2024; De Baldo and Baldarelli, 2017). The need for companies to align with social and environmental objectives is currently redefining the strategic path of firms, whose objective is usually to be profitable while simultaneously benefiting stakeholders, yet undertaking environmentally friendly policies. Within this framework, there is a need to create synergies between sustainability and social value generation (Rossi & Attaianese, 2023); this involves being environmentally oriented –e.g., through optimal waste management and resource utilization– yet implementing programs that directly contribute to social sustainability; such programs usually focus on workplace inclusion and initiatives that enhance the skills and the potential of society in the most effective manner.

In this context, the study aims to develop a strategic growth plan for Lantegi Batuak (https://www.lantegibatuak.eus/). Lantegi Batuak is a firm that fosters social inclusion by integrating disabled people and is committed to generating social value and developing the potential of all individuals while also investing in technological advancement. Hence, we aim to explore how technological and socio-environmental development can be effectively integrated in companies that prioritize social impact over economic profit. This case study exemplifies how progress in industrial and technological sectors can coexist with high levels of sustainability commitment. Lantegi Batuak shows a holistic application of its mission, vision, and values, which shapes the uniqueness of its corporate culture.

Precisely, Mrs. Beloke Alea Arrate, CEO in Lantegi Batuak, told to us in an interview that Lantegi Batuak employs social accounting (see for example Echanove-Franco, San-Jose, & Retolaza, 2023). This approach involves the quantification in monetary terms of the contributions made by an organization through various socio-emotional and socio-economic activities, distinguishing it from traditional financial accounting, which is primarily concerned with economic outcomes. In this sense, the needs of each significant stakeholder are carefully assessed and identified, distinguishing between market stakeholders—those involved in economic transactions, such as customers—and non-market stakeholders, such as society as a whole. Social accounting measures the value generated by considering market sustainability and striving to maximize —both market and non-market— profit. This process is complex, as it involves analyzing several variables, including individual, corporate, and institutional agents that influence the development of social value. Additionally, it requires addressing and explaining contradictions that may arise, which could hinder the creation of an optimal environment for the necessary societal transformation (Sarmiento, 2020).

Furthermore, Lantegi Batuak assesses how factors such as the closeness of centers, treatment of employees, training opportunities, and the creation of jobs tailored to employees' needs can generate value to both families and employees. One of the main goals is to maintain the quality and main features of these jobs, without necessarily prioritizing job creation as a strategic objective. Sustainability and effective resource management extend beyond the reuse or recycling of technological materials in factories; they also encompass strong internal organization within the company.

To sum up, our work aims to develop a strategic growth plan for Lantegi Batuak, a firm strongly committed with social inclusion. The monetization of social value represents a modern approach to wealth redistribution, translating qualitative social aspects into measurable monetary terms (Retolaza et al., 2016). Companies must critically evaluate the kind of value they wish to generate, how they want to be perceived in society, and the purpose of their activities, transforming these intentions into business practices (Kollenscher et al., 2018). Through social accounting, it turns possible to quantify, in monetary terms, the perceptions of the stakeholder groups that the company targets.

We argue that LB could follow several paths for growing. First, LB could invest in new technologies in order to make the most of employees' capabilities. Second, LB could reconfigure its service portfolio by expanding its service offerings, e.g. offering digital infrastructure maintenance. Third, LB could also develop strategic alliances with other firms and stakeholders to accomplish some activities together, which would foster developing competitive advantages.

These recommendations could also be applicable to other similar nonprofit organizations. In any case, the characteristics of each organization and its environment should be considered on a case-by-case basis to see which recommendations could be applicable and how.

Keywords: non-profitable organizations; sustainability; social responsibility; inclusion; strategy; social accounting

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FROM IDEA TO IMPACT: STUDENT CROWFUNDING AS A PRACTICE OF ENTREPRENEURIAL LEARNING

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Introduction

Climate change and its ecological consequences make it increasingly necessary to take sustainable measures. One of these measures is the afforestation of forests, which contributes to both CO_2 storage and the preservation of biodiversity. Against this background, the project "Green Future: Reforestation for a Sustainable World" was developed in the summer semester 2024 as a practice-oriented teaching project on entrepreneurship. The aim of the project was to use crowdfunding to raise funds for the reforestation of climate-resistant mixed forests in Germany and at the same time offer students a practical learning experience. They were to learn how to understand and successfully implement entrepreneurial processes, with a particular focus on sustainable and social business models.

Research question

The project focuses on the question of how crowdfunding can be used as a teaching tool in entrepreneurship education to teach students practical entrepreneurial skills while creating social value. Specifically, it examines how real environmental impact can be achieved by combining crowdfunding and entrepreneurial thinking. It also analyzes how such projects affect students' entrepreneurial risk and opportunity management.

Methodology

The project was developed and implemented by students as part of a course, with the entire process from concept development to the implementation of the crowdfunding campaign being in the hands of the students. The methodology comprised several phases:

- Project concept: The students developed a concept that combined sustainable goals with entrepreneurial action. The focus was on the question of how a crowdfunding project in the area of sustainability can be successfully planned and implemented.
- Crowdfunding campaign: The campaign was launched on the Betterplace.org platform to generate financial support for reforestation. The students used digital marketing strategies to reach potential supporters and sensitize them to the issue of sustainability.
- Project management and teamwork: The students organized themselves into teams that took on various tasks, including marketing, public relations and campaign management. The aim was to gain a sound understanding of the various facets of entrepreneurial projects.

The final reforestation campaign will be carried out in October 2024 by the project partners, the Fläming Nature Park forester team and the Artenglück organization. The students were not involved in organizing the planting campaign, but concentrated on

carrying out the crowdfunding and communicating with the donors.

Results

The crowdfunding project was a complete success: enough funds were raised to enable a significant reforestation measure in the Fläming Nature Park. In addition to the financial results, the students were able to gain valuable entrepreneurial experience that helped them to face the challenges of a real project. The project gave them insights into project management, developing effective marketing strategies and dealing with unforeseen difficulties. The aspects of personal responsibility and teamwork were particularly important and led to a practical learning process.

The final evaluation with the students showed that many of them were motivated to take responsibility and take risks by realizing a real project. This highlights the importance of integrating practical learning formats into teaching to give students the opportunity to develop entrepreneurial skills in a real-life context.

Implications for teaching and the entrepreneurship sector

The project provides valuable insights into how crowdfunding can be used in teaching to prepare students for both the challenges and opportunities of entrepreneurship. It shows that practice-oriented projects not only deepen theoretical knowledge, but also create a direct awareness of the social responsibility and risks associated with entrepreneurial activity.

1. practice-oriented learning in entrepreneurship: Through direct involvement in a real-life project, students were given a hands-on experience that fostered their ability to take entrepreneurial risks while bringing about positive social change. This strengthened their ability to act under uncertainty and develop innovative solutions.

2. crowdfunding as a teaching method: Crowdfunding provides an ideal platform to teach entrepreneurial projects in a practical way. Students learn how to develop, communicate and successfully finance an idea. It also enables them to address the question of how social and ecological goals can be integrated into profitable business models.

3. sustainability as a driver for entrepreneurial learning: The project shows that sustainability projects are an effective way of motivating students to take entrepreneurial action. Linking entrepreneurial action with social added value promotes students' commitment and creativity and anchors entrepreneurial principles on a deep, personal level.

Students' Journey with the Teaching Format

Students' Journey with the Teaching Format

In a previous study (Michelis, 2024), I outlined how students engage with and adapt to the teaching format. Each semester, the projects are rigorously evaluated to ensure their effectiveness and relevance.

Impact Evaluation: The success of the projects is measured through both their tangible outcomes and external feedback. This approach provides valuable insights into the broader impact and reception of the initiatives.

Participant Feedback and Internal Reviews: We have adopted an entrepreneurial approach to foster continuous improvement. Key elements of this process include:

- Post-Project Evaluation Meetings: These sessions provide a platform to reflect on project outcomes, identify strengths, and discuss areas for enhancement.
- Regular Feedback on Motivation and Learning Phases: Throughout the project, students are encouraged to share their experiences, offering insights into their motivation and the various learning stages.

By integrating these evaluation methods, we aim to create a dynamic and responsive learning environment that not only meets academic goals but also supports personal and professional growth.

Capturing the Overall Mood: A critical part of this process was visualizing the overall mood throughout the project, as shown in the accompanying figure. This depiction, created collaboratively by the students, integrates key elements of their emotional journey, highlighting moments of high engagement, challenges, and milestones. By mapping the emotional trajectory of the project, this visualization provides valuable context for understanding the dynamics of teamwork and learning over time.

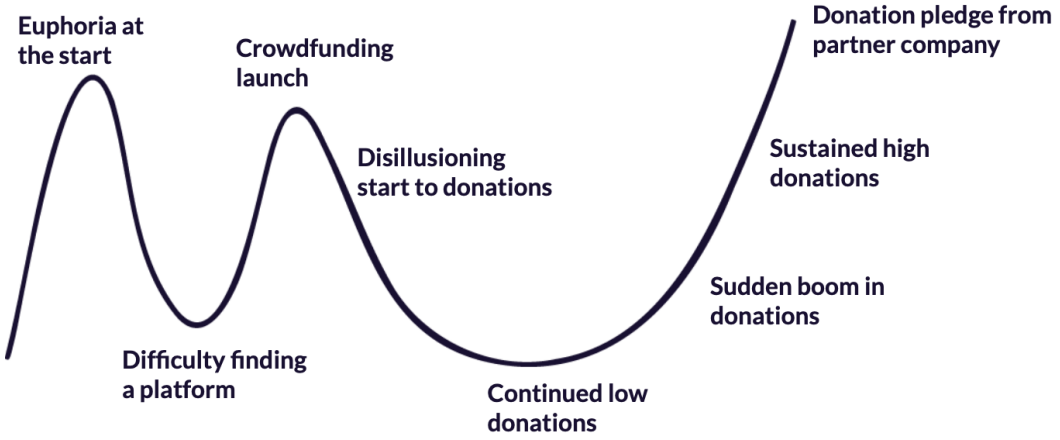

Figure 1: Capturing the Overall Mood

Conclusion

The project “Green Future: Forest Reforestation for a Sustainable World” shows how practice-oriented teaching projects in the field of entrepreneurship can be successfully used to prepare students for the reality of entrepreneurial activity. It illustrates that the combination of crowdfunding and sustainability not only generates financial support for important environmental projects, but is also an ideal learning format for promoting entrepreneurial thinking and action in practice. Students are encouraged to take responsibility, take risks and make a positive impact on society and the environment through entrepreneurship.

Translated with the help of DeepL.com

Keywords: Sustainable and Social Entrepreneurship, Entrepreneurship and Education, Digital Technology and Entrepreneurship

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- Michelis, Daniel (2024), Empowering Change: The Crowdfunding Learning Experience in Entrepreneurial Education in: Remenyi, D. (2024), 10th Teaching Innovation & Entrepreneurship Excellence Awards 2024, An Anthology of Case Histories, pp. 75-86,

LINKS & SOURCES

A selection of successful crowdfunding projects that students have realised in my courses in recent years.

- Reforestation for a sustainable world! https://www.betterplace.org/de/projects/128491-gruene-zukunft-waldaufforstung-fuer-eine-nachhaltige-welt
- Action Panda Crowdfunding with WWF Germany https://actionpanda.wwf.de/CacheAndCollect/idee
- School musical on a big stage: students use crowdfunding to support the Herder Musical Company in realising the school musical FLASHDANCE. realisation of the school musical FLASHDANCE. https://www.startnext.com/herdermusicals
- Use of crowdfunding to support the Leipzig clinic clowns n.e.V. https://www.betterplace.org/de/projects/50149-kranken-kindern-ein-lachen-schenken-leipziger-klinikclowns-n-e-v
- Flying elephants: Idea to make the stay easier for children at the University Medical Centre Hamburg-Eppendorf. https://www.betterplace.org/de/projects/46370-unterstutzt-kranke-kinder-im-malatelier-fliegende-elefanten
- Therapeutic horse riding: Students support the Deutsche Kinderkrebsnachsorge (German paediatric cancer aftercare) and campaign for therapeutic riding lessons for patients and their families. riding lessons for patients and their families. and their families. https://www.betterplace.org/de/projects/45012-therapeutisches-reiten-schenken-sie-kindern-lebensfreude
- Refugee Council Leipzig e.V.: Realisation of a crowdfunding for the support of young migrants in achieving the best possible educational qualification. https://www.betterplace.org/de/projects/31911-hilfe-nach-der-flucht-integration-durch-bildung-e-v
- ECOGON: Crowdfunding for an innovative nature education game that teaches knowledge and understanding about the environment and nature through play. https://www.ecocrowd.de/projekte/ecogon/
- Schoolchildren with language support needs: A crowdfunding project for the Rudolf Hildebrand School in Düsseldorf to support the purchase of reading pens. to support the purchase of reading pens.

https://www.betterplace.org/de/projects/31831-unterstutzer-fur-schulkinder-mit-forderbedarf-sprache-in-dusseldorf-gesucht

ANALYSIS OF THE KEY SUCCESS FACTORS IN MICRO AND SMALL ENTREPRENEURS IN THE VALPARAÍSO REGION IN CHILE

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Abstract

The development of this research is framed within the activities carried out by the authors as professors of the course "Entrepreneurship Management and New Business" in the Commercial Engineering program, Bachelor of Business Administration, belonging to the Faculty of Engineering and Business at the University of Las Americas, Chile at Viña del Mar campus.

The course, offered annually, follows an A+S (Service-Learning) model, part of the Community Intervention Program of the university's Community Engagement area. Its focus is on generating a bidirectional impact in the communities where it is implemented: an exchange of knowledge between entrepreneurs in the Valparaíso region, who receive advice on management, finance, and marketing, and the final-year students who accompany them as advisors/consultants, applying the academic content learned in the classroom to real community problems.

The micro and small entrepreneurs involved are beneficiaries of state support programs for entrepreneurship, specifically from the Technical Cooperation Service (SERCOTEC) dependent on the Ministry of Economy, Development and Tourism of Chile and different municipalities in the region.

Justification of the research

This research is primarily justified by the significant role that micro and small enterprises (MSEs) play in the economic development of the country and region.

According to data from the Internal Revenue Service, in Chile, small and medium enterprises (SMEs) contribute approximately 15% of the Gross Domestic Product (GDP), and in terms of the number of businesses in the country, 98.8% of the total are small enterprises, generating 45.5% of national employment.

While studies exist that characterize national and regional entrepreneurs, there are few empirical studies identifying factors influencing the success or failure of these entrepreneurs. Surveys conducted by government institutions, such as the Micro-entrepreneurship Survey (EME) by the National Institute of Statistics (INE), are applied at the national level and do not necessarily capture regional realities. Likewise, the survey by the National Training and Employment Service (SENCE) primarily aims to identify training needs among entrepreneurs.

The survey conducted by the Global Entrepreneurship Monitor (GEM), on the other hand, focuses primarily on characterizing entrepreneurs and the motivational variables of entrepreneurship, rather than on elements that entrepreneurs themselves perceive as factors for the success or failure of their businesses.

A distinguishing feature of this research proposal is its focus on the Valparaíso region, which, as the second most populated region in the country, has notable geographic and demographic characteristics, alongside economic activities that are highly relevant to the national economy.

Additionally, in recent years, the region has faced various climate-related disasters that have impacted the entrepreneurial environment. This study aims to identify whether certain idiosyncratic traits among regional entrepreneurs may also explain their likelihood of success.

In this way, the study seeks to contribute scientific knowledge in this field and to provide empirical evidence that can inform the design of more effective support programs for micro and small entrepreneurs in the region, focusing on success factors and excluding those that do not contribute to economic development.

Conceptual framework

The literature on entrepreneurship mentions various personal explanatory factors, such as age, gender, education level, socioeconomic status, and family background, which play a crucial role in determining who is more likely to successfully start a business and how they do it (Scott A. Shane; Jonathan T. Eckhardt, 2012).

Access to resources, support networks, and market opportunities is also affected and attributed to the sociodemographic characteristics of micro and small business owners. This variable influences the perception of opportunities and the ability to overcome obstacles (Hechavarria, D.M., Reynolds, 2009). Socioeconomic factors affect individuals' capacity to start and develop their new ventures, as some entrepreneurs had the resilience to give up when they realized their initial business idea would not lead them to success.

Methodology

The research involves conducting a survey with a representative sample of 380 micro and small entrepreneurs who participate in the SERCOTEC program or are affiliated with various municipalities in the region, and who may have optionally received advising as part of the aforementioned course.

The participation of students from the academic program will be included in data collection and tabulation, as well as in the development of proposals.

Both quantitative and qualitative data will be analyzed, considering variables related to the characteristics of the entrepreneurs and their perceptions of key success factors for their businesses.

Expected results

The expected outcomes include a characterization of the entrepreneurs in the Valparaíso region, which has not been covered in other surveys.

A needs assessment for training or support will be conducted by the university and other participating state and municipal agencies. This will create opportunities for intervention in both potential and established entrepreneurs in the region to improve their competitiveness and reduce the risk of failure.

Additionally, the research results will be shared with institutions related to Chile's entrepreneurial ecosystem, with the aim of supporting the development of better policies contextualized to the specific characteristics of the region.

Keywords

- Entrepreneurship
- Entrepreneur profile.
- Key Success factors in entrepreneurship.
- Key Failure factors in entrepreneurship.

Resumen

El desarrollo de esta investigación se enmarca en las actividades que realizan los autores como profesores del curso “Gestión de emprendimiento y nuevos negocios" de la carrera de Ingeniería Comercial, Licenciado en Administración de empresas perteneciente a la Facultad de Ingeniería y Negocios de la Universidad de Las Américas Chile, sede Viña del Mar.

El curso impartido anualmente es del tipo A+S (Aprendizaje más servicio) perteneciente al Programa de Intervención comunitaria del área de Vinculación con el medio de la universidad y su foco es la generación de un impacto bidireccional en las comunidades donde es implementado: un intercambio de conocimientos entre emprendedores de la región de Valparaíso, quienes reciben asesoría en temas de gestión, finanzas y marketing, y los estudiantes del último año de carrera, que los acompañan en calidad de asesores/consultores aplicando a problemáticas reales de la comunidad los contenidos disciplinares vistos en aula.

Los micro y pequeños emprendedores intervenidos son beneficiarios de programas de apoyo estatal al emprendimiento, específicamente del Servicio de Cooperación Técnica (SERCOTEC) dependiente del Ministerio de Economía, Fomento y Turismo de Chile y de distintos municipios de la región.

Justificación de la investigación

Esta investigación primeramente se justifica por la importancia que tienen las micro y pequeñas empresas para el desarrollo económico del país y la región.

De acuerdo con cifras del Servicio de impuestos internos, en Chile las pequeñas y medianas empresas aportan cerca del 15% del Producto interno bruto y en términos de cantidad de empresas del país, el 98,8% del total son pequeñas empresas, las que generan el 45,5% del empleo nacional.

A pesar de que existen estudios que caracterizan a los emprendedores nacionales y a nivel regional, no hay muchos estudios empíricos que identifiquen los factores que influyen en el éxito o fracaso de estos emprendedores, ya que encuestas de instituciones gubernamentales como la Encuesta de Microemprendimiento (EME) del Instituto Nacional de estadísticas INE se aplica a nivel nacional no recogiendo necesariamente la realidad regional y la del Servicio nacional de capacitación y empleo (SENCE) apunta a identificar principalmente necesidades de formación en los emprendedores.

Por otra parte, la encuesta que realiza el Global Entrepreneurship Monitor GEM, se concentra principalmente en la caracterización de los emprendedores y de las variables

motivacionales del emprendimiento y no en los elementos que los propios emprendedores perciben como factores de éxito o fracaso de sus negocios.

Otro aspecto diferenciador de la propuesta de investigación es que se aplicará en la región de Valparaíso, la que tiene características geográficas y demográficas importantes al ser la segunda región con más población del país y con actividades económicas de relevancia para la economía nacional.

Adicionalmente la región se ha enfrentado a diversas catástrofes climáticas en los últimos años que han impactado al entorno de los emprendedores. En este punto la investigación pretende identificar si existen ciertas características idiosincráticas distintivas de los emprendedores de la región que expliquen también la probabilidad de éxito.

Así, este estudio busca aportar conocimiento científico en este campo y proporcionar evidencia empírica que permita diseñar programas de apoyo más efectivos para los micro pequeños emprendedores de la región, centrándose en los factores de éxito y descartando aquellos que no contribuyen al desarrollo económico.

Marco conceptual

En la literatura asociada al emprendimiento se mencionan diversos factores explicativos de tipo personal como lo es la edad, el género, el nivel de educación, estatus socioeconómico y el entorno familiar, que juegan un papel crucial en la determinación de quién tiene más probabilidades de emprender con éxito (Scott A. Shane; Jonathan T. Eckhardt, 2012).

También el acceso a recursos, redes de apoyo y oportunidades de mercado es afectado y atribuido a las características sociodemográficas de los micro y pequeños empresarios. El motivo es que esta variable influye en la percepción de oportunidades y en la capacidad para superar obstáculos. (Hechavarria, D.M., Reynolds, 2009). Los factores socioeconómicos influyen en la capacidad de los individuos para iniciar y desarrollar sus nuevos emprendimientos, ya que estos tuvieron el valor de darse por vencidos al descubrir que su idea inicial de negocios no los conduciría al éxito.

Metodología

La investigación considera la aplicación de una encuesta a una muestra representativa de 380 micro y pequeños emprendedores que pertenezcan al programa SERCOTEC y a distintos municipios de la región y que opcionalmente hayan sido asesorados en el marco de la asignatura mencionada.

Se considerará la participación de los estudiantes de la carrera en la recopilación y tabulación de datos, así como en el diseño de propuestas.

Se analizarán datos cuantitativos y cualitativos considerando variables relacionadas tanto con las características de los emprendedores y con la percepción de los factores clave de éxito para sus negocios.

Resultados esperados

Como resultados se espera obtener una caracterización de los emprendedores de la región de Valparaíso no cubiertos en otras encuestas.

Se realizará un levantamiento de las necesidades de capacitación o apoyo por parte de la universidad y otros organismos participantes del estado y municipios, generando así instancias de intervención en las emprendedores potenciales y establecidos de la región para mejorar su competitividad y disminuir los riesgos de fracaso.

Adicionalmente se entregarán los resultados de la investigación a las instituciones relacionadas al ecosistema emprendedor de Chile con el objetivo de apoyar en la formulación de mejores políticas contextualizadas a las características propias de la región.

Palabras clave

- Emprendimiento
- Perfil del emprendedor.
- Factores clave de éxito en emprendimiento.
- Factores de fracaso en emprendimiento.

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INFLUENCE OF ICT, PREVIOUS EXPERIENCE AND ENTREPRENEURSHIP EDUCATION ON ATTITUDE, SELF-EFFICACY AND SUSTAINABLE ENTREPRENEURIAL INTENTION: AN EMPIRICAL STUDY

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Abstract

This study explores the impact of three determinants—prior experience, entrepreneurship education, and perceived benefits of information and communication technologies (ICTs)—on sustainable entrepreneurial attitude, self-efficacy, and sustainable entrepreneurial intention among university students. Sustainable entrepreneurship, which goes beyond the mere creation of economic value, promotes a balanced interaction between economic growth, social responsibility, and environmental sustainability (Doe , 2020; Smith & Brown, 2018). In this context, the research seeks to understand how these factors influence the development of competencies and attitudes that foster the creation of sustainable businesses.

The sample consisted of 454 university students from the University of Granada (UGR) and the Polytechnic University of Chimborazo (UPEC). Data were collected using a questionnaire based on the Theory of Planned Behavior (TPB), a framework that highlights the relevance of attitudes, subjective norms and self-efficacy in the formation of behavioral intentions (Ajzen, 1991).

Statistical analysis supported most of the hypotheses raised. It was observed that prior experience directly influences entrepreneurial self-efficacy, although its impact on entrepreneurial attitude is diluted when including other variables such as education and perceived benefits of ICTs (Johnson & White, 2019). Entrepreneurship education turned out to be a determining factor for both sustainable entrepreneurial attitude and self-efficacy, confirming that educational programs oriented towards sustainability significantly increase students' perceived capabilities to undertake sustainable entrepreneurship (Green & Taylor, 2021).

Furthermore, perceived benefits of ICTs showed a clear impact on the formation of positive attitudes and the reinforcement of self-efficacy, underlining the importance of technology as a key enabler in the development of sustainable ventures (Lee et al., 2020). The data also indicated that both entrepreneurial attitude and self-efficacy are strong

predictors of sustainable entrepreneurial intention. The relationship between self-efficacy and intention was particularly strong, reinforcing the idea that confidence in one's own ability to manage a sustainable business is essential for the formation of entrepreneurial intention under sustainability principles (Bandura, 1997).

Conclusions

The results of this study underline the crucial role of entrepreneurship education and the perceived benefits of ICTs in shaping sustainable entrepreneurial attitudes and self-efficacy. Self-efficacy, in particular, emerges as a determining factor in students' intention to engage in sustainable entrepreneurship, suggesting that educational programs should focus on developing this confidence through practical experiences and the use of emerging technologies (Zimmerman, 2000). Likewise, the importance of designing educational environments that integrate sustainability and technology is highlighted to prepare students to face the challenges of sustainable entrepreneurship in the 21st century (Porter & Kramer, 2006).

This study has important implications for the design and implementation of educational programs in sustainable entrepreneurship within universities. The findings suggest that training programs should integrate technological and sustainable components that not only provide theoretical knowledge but also reinforce students' self-efficacy through practical experiences and the incorporation of ICTs (Brown et al., 2020). Universities should focus on providing an enabling environment for sustainable entrepreneurship by facilitating appropriate infrastructures such as business incubators, specialized advice, and access to investment networks that promote sustainability (Thompson, 2020).

The importance of ICTs as enablers of innovation in the field of sustainable entrepreneurship is also evident in this study. Students who perceive ICTs as useful tools for creating sustainable businesses show a more positive attitude and greater confidence in their ability to meet the challenges of such ventures (Davis, 1989). These technologies not only improve operational efficiency, but also allow students to explore new opportunities for developing sustainable businesses (Kim & Mauborgne, 2005).

This study contributes to the body of knowledge on sustainable entrepreneurship by offering a broad overview of the factors that influence sustainable entrepreneurial intention, providing educational policy makers with clear guidance on how to structure programs that foster the creation of sustainable businesses (World Commission on Environment and Development , 1987).

Keywords

Sustainable entrepreneurship, previous experience, entrepreneurship education, ICTs, entrepreneurial attitude, self-efficacy, entrepreneurial intention

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EXPLORING THE DYNAMICS OF KNOWLEDGE AND INNOVATION IN TOURISM SMES: A SYSTEMATIC REVIEW

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Abstract

In the tourism industry, innovation is crucial, as it enables businesses to gain a competitive advantage, adapt to evolving consumer preferences, and align with global trends. In recent decades, numerous academic studies have investigated the link between innovation and firm performance in order to gain a competitive advantage, revealing their cause-and-effect relationship (e.g. Camisón & Villar-López, 2014). Furthermore, extensive research has explored, among others, innovation types, technology applications, forms of collaborative innovation, and also barriers, deepening the understanding of innovation's multifaceted nature.

Amidst the growing focus on tourism, the study of Knowledge inside organisations has emerged as pivotal in promoting innovation to ensure long-term competitiveness (e.g. Cooper, 2006). In particular, with External Knowledge (EK) as a focal point, there has also been a growing interest in exploring the related concepts of Absorptive Capacity (AC) and Organisational Learning (OL). EK refers to the knowledge acquired from sources outside of an organisation (Hoarau, 2014), AC empowers firms to access EK and often serves as a crucial stimulus for innovation (Zahra & George, 2002), while OL processes facilitate the internalisation and utilisation of knowledge, transforming it into tangible innovative outcomes (Argyris & Schön, 1978).

Although these concepts have been traditionally explored within the context of large firms, their significance has recently extended to encompass small and medium-sized tourism enterprises (SMTEs). Unsurprisingly, SMTEs have garnered growing attention, considering that they account for approximately 80% of all businesses in this industry (UNTWO, 2022). However, they exhibit distinctive characteristics in terms of size, informality, internal resources, and management approaches (Woods & Joyce, 2003) and face challenges in terms of fragmented activities, resource access constraints, and a scarcity of expertise that can hinder their ability to engage in innovation (Cooper, 2006; Thomas et al., 2011). SMTEs actively innovate by acquiring EK mainly regarding information, insights, and expertise outside their organisation (Thomas & Wood, 2014). However, while EK has become recognised as a valuable resource, it also challenges innovation. SMTEs have the advantage of flexibility compared to larger firms, but they often struggle with acquiring and applying knowledge, particularly tacit knowledge, which makes management a complex task (Shaw & Williams, 2009). This complexity is particularly pronounced for SMTEs as they face unique challenges in innovation when managing EK using AC and OL. Understanding and empathising with these specific challenges is crucial for supporting SMEs in the tourism industry.

The concepts of EK, AC, and OL are closely interconnected and require a thorough understanding of their dynamics. However, the existing literature rarely addresses these concepts together in the context of SMTEs, resulting in a fragmented and limited depiction. This paper aims to address this gap by integrating research on these concepts within the context of tourism innovation, particularly on SMTEs. It conducts a systematic review of current academic literature to offer valuable insights and potential contributions to furthering knowledge in this field.

Research question. The review intends to contribute to a deeper understanding of the synergic connection of the concepts investigated with the following question: *How do absorptive capacity, organisational learning and external knowledge influence innovation in small and medium-sized enterprises within the tourism industry?*

Methodology. A systematic literature review is conducted to synthesise research on AC, OL and EK for innovative SMTEs in a transparent, reproducible, and rigorous manner. The review searched three databases (Web of Science, Scopus and EBSCO) using keywords based on prior studies, highlighting the diversity of terminology and scope of AC, OL and EK. The articles identified as relevant to the research topic are currently undergoing an in-depth analysis based on several criteria, including the perspective of the analysis, the methodology employed, and the specific themes addressed within each article.

Results. The review will uncover the relationships and the interconnections between AC, OL, and EK within the context of innovation in SMTEs literature. It will identify themes emerging from their exploration and shed light on the underlying theories, patterns, structures, and dynamics that shape their collective essence.

Implications. This study is crucial as it adds to our understanding of how SMTEs use OL, AC, and EK to drive innovation. It offers valuable insights into current academic research and encourages professionals in the tourism industry to incorporate knowledge-based concepts into their strategies for improved innovation efforts.

Keywords: tourism innovation; SMEs; absorptive capacity; organisational learning; external knowledge.

Funding: This work has been developed within the framework of the project e.INS-Ecosystem of Innovation for Next Generation Sardinia (cod. ECS 00000038) funded by the Italian Ministry for Research and Education (MUR) under the National Recovery and Resilience Plan (NRRP) - MISSION 4 COMPONENT 2, "From research to business" INVESTMENT 1.5, "Creation and strengthening of Ecosystems of innovation" and construction of "Territorial R&D Leaders".

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FINANCIAL TOOLS FOR SUSTAINABLE ENTREPRENEURSHIP: EXPLORING THE IMPACT OF CARBON CREDITS ON FINANCIAL OUTCOMES

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Abstract

Climate change poses an escalating threat to the planet and demands urgent and coordinated action from all sectors and stakeholders in society (Alsaifi et al., 2020). Unchecked greenhouse gas emissions from human activities drive significant changes in the Earth's climate with far-reaching implications for ecosystems, economies, and human well-being (Adu et al., 2023; Tansan et al., 2023). It is already known that addressing the multifaceted challenge of climate change requires a united effort from governments, businesses, civil society, and individuals (Gong et al., 2022). However, with its influence, resources, and expertise, the financial community plays a crucial and empowering role in guiding the transition to a low-carbon, climate-resilient economy (Bolton et al., 2022). Climate and carbon finance are essential areas in the financial sector relevant to addressing climate change, providing mechanisms for mobilizing capital, managing risk, and making investment decisions to support climate mitigation and adaptation efforts (Li, 2024).

Recent studies emphasize that numerous organizations worldwide have integrated climate change strategies into their decision-making processes in response to regulatory requirements and stakeholder claims (Issa & Hanaysha, 2023). Furthermore, other empirical research indicates that embracing environmentally friendly practices can yield economic advantages, including heightened energy efficiency, lowered operational expenses, enhanced waste management, favorable public relations outcomes, and expanded investment opportunities (Kim et al., 2023).

In the current complex environmental landscape, there is a growing emphasis on financial

mechanisms designed to address climate change and support corporations in complying with climate regulations. This study focuses on carbon credits, instruments created to accelerate companies in mitigating their emissions and attaining carbon neutrality (Betz et al., 2022). These tools allow high-emission companies to meet their reduction obligations by financing emission-reducing initiatives, even when these projects are not directly aligned with the company's core operations (Bleuel & Müller, 2024). Additionally, this study provides an in-depth examination of the role of carbon credits within the framework of climate change management, with a particular emphasis on their influence on corporate financial performance.

This research aims to improve our understanding of the relationship between carbon reduction initiatives and financial performance. By analyzing existing literature comprehensively and identifying potential moderating factors, the study aims to offer novel insights into this relationship through an innovative perspective. It explores the role of carbon credits as instruments within climate and carbon finance used to facilitate emission reductions and achieve carbon neutrality. Additionally, the study evaluates the potential moderating effects of Corporate Social Responsibility (CSR) strategy and the quality of Corporate Governance on this relationship.

To study this relationship, we employed the resource-based view and legitimacy theories as part of our theoretical frameworks. Sustainability strategies are conceptualized as unique resources and capabilities that allow firms to achieve a competitive advantage and establish legitimacy by aligning with stakeholder expectations and social norms. This perspective is grounded in the resource-based view theory, which underscores sustainability strategies' distinctive role as valuable assets for firms (Barney, 1991). Alongside, legitimacy theory highlights the need to observe stakeholder expectations and social norms to maintain operational legitimacy (Dowling & Pfeffer, 1975).

To fill this gap and test our hypothesis, we examined a global sample of companies that employed carbon credits over five years (2019-2023) to reduce carbon emissions and/or attain carbon neutrality. We conducted a longitudinal analysis employing a Pooled Ordinary Least Squares model (Issa, 2024) to assess the effect of carbon credits on financial outcomes. This model allowed us to control for various factors that could influence financial performance, such as industry type, company size, and economic conditions, thereby providing a robust analysis of the relationship between carbon reduction initiatives and financial performance.

Our primary results reveal a positive correlation between a company's use of carbon credits to reduce its footprint and its financial performance. This finding is not just a validation of the effectiveness of carbon reduction initiatives, but also a beacon of hope for a sustainable future. Additionally, the results from the moderating analysis suggest that integrating a Corporate Social Responsibility (CSR) strategy, combined with high-quality corporate governance, may enhance the impact of carbon credits on financial performance, achieving carbon neutrality. These results underscore several contributions, notably highlighting the favorable association between carbon emission reductions achieved through carbon credits and improved financial performance.

These findings offer significant insights for researchers, practitioners, and policymakers striving to advance sustainable practices and emphasize the link between sustainability

initiatives and financial outcomes, thereby guiding entrepreneurs more effectively and efficiently towards a sustainable transition. For policymakers, these results underscore the potential benefits of incentivizing the use of carbon credits and promoting high-quality corporate governance, as these measures can enhance the financial performance of companies while contributing to climate change mitigation. The results elucidate the intricate relationship between sustainability practices and financial performance, providing theoretical perspectives on carbon emission reduction through specific tools and their financial impacts on firms. From a resource-based view theory perspective, carbon credits are perceived as a strategic asset that can lead to a competitive advantage, improving financial performance. Additionally, through the lens of legitimacy theory, adopting carbon credits can enhance a company's credibility with stakeholders, fostering customer loyalty and mitigating risk perceptions, ultimately contributing to better financial performance through cost savings. Consequently, managers and entrepreneurs must recognize the value of implementing effective sustainability strategies and high-quality corporate governance, as these can amplify the beneficial effects of carbon credits on financial performance. Finally, from the investors' perspective, corporate efforts to address climate change and its positive financial impacts introduce new variables to evaluate investment opportunities.

In summary, this research underscores the potential of carbon reduction initiatives to improve financial performance without causing significant disruptions. It offers substantial evidence supporting sustainability-focused entrepreneurs' use of these initiatives, delivering theoretical insights and practical benefits. Integrating climate finance strategies with sustainable finance is essential for reducing carbon emissions, building resilient climate infrastructure, and promoting environmental sustainability. This symbiotic relationship encourages entrepreneurs to redouble their efforts to combat climate change. Furthermore, these initiatives contribute to both the micro level by enhancing corporate financial performance and the macro level by advancing the Sustainable Development Goals (SDGs) for 2030, particularly those related to climate action and sustainable cities and communities (Tang & Zhang, 2020). The emergence of new financial instruments designed to address climate change highlights the intrinsic link between finance and sustainability and emphasizes the increasing importance of climate and carbon finance (Dimic et al., 2023).

Keywords: Climate change; Carbon credits; Financial performance; CSR strategy; Corporate governance

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INDIVIDUAL ENTREPRENEURIAL ORIENTATION IN UNIVERSITY STUDENTS: A REVIEW BASED ON BIBLIOMETRIC ANALYSIS

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Abstract

For some years now, the institution of the university has been undergoing a process of profound transformation, such that its functions have been expanded, so that although its main objective continues to be the education and training of its students (Rådberg & Löfsten, 2024) aspects such as their future employability and their potential entrepreneurial and intrapreneurial vocations (Klofsten et al., 2021) are becoming increasingly important in the design of its strategy and actions.

Within the scientific literature related to entrepreneurship, a preponderant place is occupied by the study of the reality of Entrepreneurial Orientation (EO) (Wales et al., 2023) linked to potential entrepreneurship (Hizarci et al., 2023). In the case of individuals, in recent years, there has been increasing interest in studying this reality in a manner linked to individuals (Nikitina et al., 2023). However, unlike its connection with business reality, there is still room for research and analysis in studying the reality of Individual Entrepreneurial Orientation (IEO) (Santos et al., 2020).

In the case of EO, this is a construct which, according to Marques et al. (2019), alludes to the personality traits of the person that in some way can favor the development and generation of actions and behaviors of an entrepreneurial nature. The elements traditionally considered as drivers of EO, according to Covin & Slevin (1991), are the tendency to Innovation, the ability to Assume Risks and Proactivity, in the case of individuals, and more specifically in university students with these personality traits enhanced, according to Fashami et al. (2021) would be closer to carry out in the future behaviors of the entrepreneurial and intrapreneurial type.

In this work, an in-depth scientific study of all the related scientific literature that addresses the reality of OEI in a way connected to individuals, and more specifically to university students, is carried out to establish the basis for its study and the evolution of the concept in the related scientific literature.

To achieve this objective, we consulted the two leading scientific databases in the field of social sciences (Parris & Peachey, 2013) currently considered: Web of Science (WoS) and Scopus. This is a differential fact concerning other works of a bibliometric nature

(Caputo & Kargina, 2022). These consultations yielded a total of 112 potential papers to be analyzed, and after applying the exclusion and harmonization criteria to provide a global and homogeneous view of the possible connections and interrelations of the realities under study, 54 papers were analyzed.

Keywords: individual entrepreneurial orientation, university students, bibliometric study, Biblioshiny

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UNLOCKING ENTREPRENEURIAL STARTUP POTENTIAL IN JORDAN: A STUDY ON THE IMPACT OF SOCIAL MEDIA INFLUENCERS ON SMALL BUSINESS GROWTH

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Abstract

The region's leading entrepreneurship hubs are of great importance. With the advent of social media, it has become much easier for businesses to promote their products and services in a cost-effective manner, while maintaining their visibility. Social media has become a powerful medium in the digital world, allowing businesses to connect with audiences through influencers' impact and reputation to boost sales (Freberg et al., 2011). This trend is in line with global trends, where influencers are increasingly believed to be more engaging and authentic than traditional advertising (Lou & Yuan, 2019). As a result, small businesses in Jordan are beginning to realize how influencers can reach their target markets, boost brand awareness and increase sales. Social media influencers are a new marketing concept that has proven effective in various advertising strategies to support business growth (Kapitan & Silvera, 2016). They create brand awareness, build trust, and build loyalty, which contributes to increased sales. Influencers act as intermediaries between brands and consumers, providing credibility that differs from traditional advertising methods (Deveirman et al., 2017). In Jordan, where the market is rapidly expanding with the emergence of many startups, influencers have proven to be an effective element in the growth of small businesses. This study used a mixed-method approach that included 100 small business owners, ten influencers, and three in-depth case studies of successful companies operating in influencer marketing. The results showed that 70% of small businesses in Jordan use influencer marketing techniques, especially on Instagram, Facebook, and Twitter. Blogger engagement resulted in significant increases in brand awareness by 90%, website traffic by 80%, and sales by 70%. However, the study also identified several challenges, such as finding the right influencers (60%), measuring ROI (50%), and maintaining effective collaborations over

the long term. The lack of research on how influencers impact small business growth in Jordan from a broader perspective represents an important gap that needs academic investigation, while global research often points to authenticity (Audrezet et al., 2020), target market fit, and dynamic collaboration as key factors for the success of influencer marketing campaigns, studies on how these findings apply to the Jordanian context are limited. In fact, a Jordan Marketing Research Company study (2023) demonstrated that businesses of all sizes who employed individuals as influencers saw an increase in sales for every targeted campaign by more than double the average rate approximately 65%. Influencer posts also had 300% more engagements on average than traditional ads, showing that they connected better with their audiences (Jordan Marketing Research Company, 2023). In addition, results of small businesses studies show an increasing number of visits to websites during the influencer campaigns up to 75%, and with a 50% longer average duration which indicates that these tools can be used not only attracting audience but also effectively engaging it (Al-Hussein & Nasser, 2023). A survey conducted by the Jordan Social Media Association (2023) also shows that 80% of consumers are more likely to buy products endorsed by influencers. It was also found that brands that partnered with micro-influencers achieved a 90% increase in brand awareness, as measured by user mentions and hashtag use on various social media platforms. Therefore, there is an opportunity to explore whether social media influencers can boost sales for small businesses in Jordan based on existing literature. The study highlights the importance of creativity and an organic approach in influencer-led campaigns. It also addresses a gap in the literature on digital marketing and entrepreneurship in developing countries, particularly in the Middle East. Practical suggestions for small business owners in Jordan include implementing training programs, creating platforms to match influencers with businesses, developing marketing guidelines, and providing incentives for digital investment. Despite some limitations such as the small sample size and reliance on self-reported data, future research should explore how influencer marketing can enhance entrepreneurial potential and transparency among startups in Jordan. This study highlights the impact of social media influencers on small businesses in Jordan, focusing on their role in increasing brand visibility and expanding sales. The research is valuable for entrepreneurs, influencers, and policymakers seeking to design more effective influencer strategies in Jordanian digital economy.

Keywords: Unlocking, Entrepreneurial, Startup, and Potential.

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SUSTAINABLE DEVELOPMENT AND INNOVATION SYSTEMS: THE CASE OF COLOMBIA

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Abstract

Technological innovation systems (TIS) are "a set of elements, including technologies, actors, networks and institutions, that actively contribute to the development of a particular technological field" (Bergek et al., 2008; Markard & Truffer, 2008; Bergek et al., 2015), where an elaborate framework is provided regarding the prerequisites for the successful diffusion of new technologies (Magnusson & Berggren, 2018). They represent one of the key approaches in sustainability transition studies (Markard, 2020).

However, most of these studies associated with TIS have been conducted in developed countries, and the characteristics of developing countries have not been considered (Edsand, 2019). In recent developments on TIS have suggested that their function approach needs to be adapted to be useful to contexts like developing countries (Bergek, 2019).

In the context of sustainability challenges, bioplastics have emerged as an alternative to help solve the problem associated with the excessive accumulation of plastic waste. The global production capacity is expected approximately 7.59 million tons in 2026 (European Bioplastics, 2022). Companies such as Novamont (a leading Italian company in the bioplastics sector) have reached maturity in R&D, but in countries such as Colombia there are not a large number of organizations competing in this type of market (Arboleda & Villada, 2017).

Although the TIS approach can be important for technological development for sustainability challenges, there are still gaps in its application in developing countries and the development of strategies and sectors related to sustainability. Some research questions arise such as: What are the key characteristics to consider in a technological innovation system (TIS) framework in developing countries? Do they differ from the characteristics of developed countries? Are there critical barriers to the advancement of

innovation in developing countries such as Colombia? Likewise, from a specific case, what is the role that countries with extensive wealth in natural resources can play for the bioeconomy in sectors such as the development of bioplastics?

In this way, the aim is to develop a research considering different methodologies and qualitative tools, which will be presented below.

A literature review will analyze the TIS in developing countries or in contexts of low technological intensity. Bibliometric methods will be used, with scientific databases such as Web of Science and software such as VOSviewer for the collection and analysis of large volumes of data (Chaparro-Banegas et al., 2023).

Secondary information will be used for the analysis of each of the TIS functions. It is expected to review documents and data available on government, business and academic web portals.

An intentional sampling of organizations and key actors linked to the bioplastics sector in Colombia will be made. Considering some of the criteria used by Esmailzadeh et al (2020) to select the experts.

This research will consider the proposals made by Edsand (2017) around evaluation of experts. A semi-structured interview will be designed to inquire about aspects of the functions of TIS related to bioplastics. This instrument will be validated. The recommendations made by Hernández et al., (2014) will be consider.

An information analysis process will consider different sources of information, both primary and secondary. A triangulation process of information sources will be developed. For this, the triangulation protocol proposed by Farmer et al (2006) will be partially followed, in the steps corresponding to: 1) Sorting; 2) Convergence coding; 3) Convergence assessment and 4) Completeness assessment.

From this, conclusions, recommendations and future approaches will be made around the development of a TIS in Colombia.

This research is part of the so-called “Bioeconomy Mission”, promoted by the Mission-Oriented Policy of Colombia, contributing to new knowledge regarding the key dynamics for the sustainable development of a developing country and a high-growth sector such as bioplastics. The analysis of the dynamics of a TIS in a country like Colombia implies a step towards recommendations in terms of public policy in terms of approaches oriented towards directed and coordinated efforts towards the dynamization of priority functions that can be defined.

Therefore, this research results and conclusions are expected to improve the understanding of the dynamics and challenges involved in changing from an extractive model to a knowledge-based model that takes advantage of the natural wealth found in countries like Colombia. This represents the possibility of generating new productive processes such as the generation of for example, bioplastics, which can be the basis for promoting sustainable use of natural resources to create or strengthen value chains to increase the well-being of local communities.

Keywords: Technological Innovation System; Sustainable development; Bioplastics; Qualitative research

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ELEVATING FEMALE TRANSITIONAL ENTREPRENEURS FOR SOCIAL SUSTAINABILITY, REVISITING THE NEED FOR ENTREPRENEURSHIP EDUCATION AND TRAINING (EET)

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Abstract

This study examines the influence of entrepreneurship education and training (EET) for transitional entrepreneurship among women entrepreneurs that how they contribute to the economies of nations and social sustainability, using data from a comprehensive literature analysis and narrative analysis (Bashir, 2019). The training and education programmes for female transitional entrepreneurs are examined in this paper using interpretations of significant literature incidents and the issues that entrepreneurship education and training (EET) attempts to address (Mühlböck, 2018). The goal of the current study is to ascertain through extant literature and interpreting human experiences and motivations by looking closely at the stories, how entrepreneurial mindset, aptitude, and aspirations among female transitional entrepreneurs are impacted by entrepreneurship education and training (Hartmann, 2022). In addition to being a vital force behind social and economic advancement, female entrepreneurship can, for most of its practitioners, mark a significant turning point in their own lives and business world as well (Arteaga-Fonseca, 2023). The practice of female entrepreneurs from underprivileged communities who manage significant life transitions while starting and running new businesses in response to various obstacles and changes in their surroundings is known as "transitional entrepreneurship," a rapidly developing field of knowledge and practice (Nair, 2021).

This paper's main objectives are to highlight the effects of Entrepreneurship Education and Training (EET) on women entrepreneurs, strategies to operate in the business world and to compile some of the sporadic research on the crucial subject of female transitional entrepreneurship (Bruton, 2015). Extant literature claimed that because it alters the course of national economies, industries, or markets, the notion of transitional entrepreneurship (TE) within transitional economies and developing and developed economies has lately acquired popularity in the entrepreneurship literature (Boufares Tayaa, 2022). It is

therefore crucial that the government adopt policies for female entrepreneurship education and training (EET) to facilitate and promote female entrepreneurship (Duan, 2021). The study examines how women who attempt to enter the business world, whether as managers or as entrepreneurs, typically face a variety of environmental barriers (Magnani, 2018). It is evident through previous studies (Lee, 2021) that it's possible to assess barriers to women's entrepreneurship in three stages. obstacles that prevent women from starting their own businesses, issues that they face during start-up, and issues that they face throughout management (George, 2012). The goal of this study is to develop guidelines and practical suggestions to help a large number of transitional women entrepreneurs who have the power to fundamentally alter the economies of the nations (Longoria, 2018).

According to previously published research from scopus and web of science, women entrepreneurs have become more crucial in recent years in fostering the expansion and advancement of the national economy, and women entrepreneurs should receive a great deal of entrepreneurial education and training (EET) (Pidduck, 2021) (Lucas, 2023) (Javadian, 2012). This study is centred on a review of a large body of literature that suggests that women's entrepreneurship is one of the key factors influencing the nation's industrial growth. This study revolves around narrative analysis that will focus on interpreting the core narratives of study group's personal stories that women entrepreneurs can improve their technical and knowledgeable capacities through specialised entrepreneurial education and training (EET) by providing them the information, abilities, and perspective they need to seize the opportunities and overcome obstacles at every phase of their entrepreneurial journey. (Spender, 2017). This narrative review is carried out by compiling, evaluating, and summarising journal articles from scopus and web of science on entrepreneurial education and training (EET) and female transitional entrepreneurship (Morris, 2022) (Patzelt, 2014) (Moghaddam K. T., 2017) along with interviewing the focus group of this study.

The review highlights how important it is for female transitional entrepreneurs to receive entrepreneurship education and training (EET) in order to enable them to launch their business by developing innovative ideas and expressing the vision statement in addition to running, and expanding their own companies via risk management and financial management at each phase business lifecycle simultaneously focusing in relationship building and reputation management (Stam, 2011). This study showed that women are empowered by entrepreneurship education and training (EET) because it gives them first, the opportunity to benefit from additional knowledge and infuse it into their business project, and then the motivational support they need, namely self-assurance to follow their company ideas and execute them accordingly (Xu, "Jump to platform faster? Gender, institutional change, and pre-entrant entrepreneurial attempt",, 2023). It promotes women to assume leadership roles and aids in dispelling gender stereotypes. These kinds of training programs frequently provide networking chances for female entrepreneurs to meet mentors, colleagues, and business experts (Ramadani, 2014).

Furthermore, the expected findings of the study indicate that entrepreneurship education and training (EET) increase knowledge of women entrepreneurs regarding multiple industries and business potential. It supports innovation, social sustainability and creativity in women's entrepreneurial endeavours by assisting them in recognising and capitalising on market trends (Gundry, 2014). Work-life balance is emphasised frequently by EET, which supports female entrepreneurs in running their companies and leading

fulfilling personal lives (Gomez, 2015). This is especially important because women frequently have many responsibilities. This study shows that proficient women business owners as role models who encourage others to follow their entrepreneurial dreams (Dorado, 2013). According to this article's analysis of the prior study, entrepreneurship education and training significantly and favourably influences the goals of female entrepreneurs. This article discusses the possibility of a beneficial worldwide influence of social sustainability as more women engage in entrepreneurship education and training (EET). In addition to addressing social and environmental issues in the economic sector, female entrepreneurs support sustainable development goals in the business world.

Keywords

Women entrepreneurs, Female transitional entrepreneurs, Entrepreneurship education and training (EET), Social sustainability

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EMPRENDIMIENTOS SOCIALES LIDERADOS POR MUJERES: UN ESTUDIO FENOMENOLÓGICO EN EL PERÚ

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Resumen

Propuesta. Este estudio, bajo un enfoque fenomenológico, explora la experiencia de las mujeres líderes de emprendimientos sociales en el Perú. Específicamente, se explora la creación y desarrollo de emprendimientos sociales; el rol que desempeña el emprendimiento social para las propias mujeres, y los recursos empleados en este tipo de emprendimientos.

Diseño/metodología. La muestra estuvo constituida por 30 mujeres peruanas fundadoras, propietarias y líderes de emprendimientos sociales en el Perú. Dado que no existen bases de datos de mujeres emprendedoras, la estrategia de muestreo se basó en la bola de nieve (Patton, 2002). A partir de personas con experiencia en el fenómeno y las referencias facilitadas por las participantes de este estudio, se accedió a mujeres con conocimiento y experiencia en el emprendimiento social. Todas las participantes de la muestra iniciaron actividades con una misión o fin social y sus emprendimientos sociales tuvieron no menos de tres años de funcionamiento formal al momento del estudio. Los datos se recolectaron a través de entrevistas en profundidad con una duración entre 60 y 90 minutos cada una, los cuales fueron codificados, categorizados y analizados según las fases sugeridas por Moustakas (1994).

Resultados. El estudio propone un marco de análisis sobre la creación y desarrollo de emprendimientos sociales liderados por mujeres, que incluye factores individuales, sociales, culturales e institucionales, así como el rol que desempeñan estos emprendimientos en la vida de sus propias líderes y la sociedad, y los recursos empleados por los emprendimientos sociales. Dicho marco de análisis pretende ser una estructura que guíe el desarrollo futuro de los emprendimientos sociales.

Originalidad/valor. Los resultados ofrecen información valiosa a los responsables del sector privado y público para que contribuyan con el desarrollo de las mujeres en el campo del emprendimiento social en el Perú y en la región. Empresarios, investigadores, políticos y la sociedad civil contribuyen con la construcción del contexto, por tanto,

pueden contribuir con la eliminación de brechas de género y culturales en el emprendimiento social. La formulación e implementación de políticas y programas integrales deben incluir apoyo financiero, estructural, social y cultural para fortalecer estos proyectos, especialmente en contextos similares al analizado. La originalidad de este estudio radica en estudiar este fenómeno en Perú. Las estadísticas ubican al Perú dentro de los primeros seis países en el mundo con mayor crecimiento (en puntos porcentuales) en la participación laboral femenina entre el 2000 y 2022 (Banco Mundial, 2023). A ello se suma el enorme potencial emprendedor del Perú, que lo situaron en el cuarto lugar con mayor intención para emprender de América Latina y el octavo lugar en el mundo (Global Entrepreneurship Monitor Perú, 2018-2019). No obstante, la inserción laboral de las mujeres se produce mayormente en forma de autoempleo o empleo en pequeñas empresas, condiciones que se caracterizan por la informalidad, inestabilidad y brechas salariales favorables a los hombres (INEI, 2023). Además, la cultura patriarcal que hace del Perú un país en donde las mujeres son afectadas en sus decisiones de formar y desarrollar empresas (Programa de las Naciones Unidas para el Desarrollo en el Perú, 2023-2026), con incidencia negativa en su desarrollo social (Del Carpio & Avolio, 2023).

Limitaciones. Aunque este estudio fenomenológico exploró la experiencia de 30 mujeres peruanas y líderes de emprendimientos sociales, la especificidad de su contexto hace que no sea apropiado generalizar los resultados ni asumir que los hallazgos sean aplicables al resto de las mujeres emprendedoras sociales en diversas regiones del Perú. Es posible que las participantes hayan omitido, voluntaria o inconscientemente, ciertos aspectos de sus experiencias. Además, la estrategia de muestreo en cadena o "bola de nieve" podría haber limitado la diversidad de tipos de emprendimientos sociales representados en el Perú.

Palabras clave: emprendimiento social, género, emprendimiento

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TRACING THE EVOLUTION OF TRADITIONAL LOGISTICS AND THEIR CONNECTIONS TO THE GREEN LOGISTICS CONCEPT: A THEORETICAL APPROACH

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Logistics involves the management of material flow and organizational processes that impact an organization's performance, costs, and profits. It ensures the efficient supply, movement, storage, and control of a company's goods by utilizing appropriate means, conditions, and timing.

Logistics has rapidly evolved over the past four decades, characterized by increasing integration and coordination of tasks. Initially fragmented, logistics began merging into two functions: material management and physical distribution by the 1960s. The 1990s saw further integration due to globalization, allowing logistics to encompass the entire supply chain under a unified management perspective. Modern information and communication technologies facilitated this comprehensive integration, leading to the emergence of supply chain management, which consolidates information, finance, and goods flows. Recently, automation has become a key factor in logistics evolution, reducing labor costs and increasing efficiency (Rodrigue, 2017).

The evolution of logistics is closely tied to the industrial revolutions that transform manufacturing and impact logistics. The first industrial revolution (1.0) began in the late 17th century with steam-powered machines (Ezzat et al., 2019; Domingo, 2016; Gabriel and Pessl, 2016). The second industrial revolution (2.0) occurred in the late 19th century, marked by electric machines and conveyorized mass production, increasing the need for goods distribution. In 1964, logistics was recognized as a business process, primarily focused on the distribution of physical goods (Ezzat et al., 2019). The third industrial revolution (3.0) emerged in the late 1970s with the rise of electronics and information technology, automating production (Ezzat et al., 2019; Gabriel and Pessl, 2016). The fourth industrial revolution (4.0) in the 21st century is defined by fully automated systems, artificial intelligence, cloud computing, and cyber-physical systems.

In the 1930s, the fourth industrial revolution evolved into the fifth (5.0), emphasizing sustainability, human-centeredness, and resilience. Industry 5.0 values new technologies while promoting job growth, environmental compliance, and worker well-being. The EU Commission has shifted its focus to people and the environment, launching initiatives like

"An Economy Serving People," "A Europe Fit for the Digital Age," and the "European Green Deal," which impact logistics practices. The Fifth Industrial Revolution seeks to reintegrate the human touch into manufacturing, enhancing sustainability and resilience (Akundi et al., 2022; Ghobakhloo, 2020; Keidanren, 2018).

Each industrial revolution has driven significant changes in logistics, leading to logistics revolutions. The shift from traditional to green logistics emphasizes a balance between operational efficiency and environmental sustainability.

Traditional logistics and green logistics are both methodologies for managing the movement and storage of goods, yet they differ significantly in their priorities and impacts. As businesses increasingly recognize the importance of sustainability, understanding these distinctions becomes essential for fostering responsible supply chain practices. Traditional logistics primarily focuses on cost-effectiveness and efficiency, often overlooking environmental consequences. In contrast, green logistics prioritizes sustainability and seeks to minimize negative environmental impacts across the supply chain. It also emphasizes the optimization of resource usage, the adoption of eco-friendly practices, and the promotion of collaboration among supply chain partners to develop and implement sustainable strategies. Moreover, traditional logistics may fail to account for the growing consumer demand for sustainability (Akundi et al., 2022; Jafari et al., 2022; Trstenjak et al., 2022).

Trstenjak et al. (2022) contend in their study that logistics within the supply chain serves to link the diverse production, technological, and organizational processes. This connection facilitates interaction between a company and its suppliers, logistics service providers, and customers. By incorporating elements of environmental and economic sustainability, along with digitalization, into the supply chain, the concept of green logistics emerges.

Green logistics represents a strategic approach to minimizing the environmental impact associated with the flow of inventory, finances, and related information from the raw materials stage to the end user. This approach encompasses sustainable practices for sourcing raw materials, which include evaluating suppliers, selecting eco-friendly alternatives, and implementing environmentally conscious manufacturing and transportation methods. These activities foster strong relationships with stakeholders throughout the supply chain, benefiting suppliers, focal firms, and customers. Effective supply chain management provides a competitive advantage. Implementing green logistics requires aligning operations with eco-friendly principles, which involves restructuring processes, managing third-party relations, optimizing resources, enhancing customer interactions, and promoting transparency, all aimed at creating value while protecting the ecosystem.(Trivellas et al., 2020; Sureeyatanapas et al., 2018; Dudi, 2016).

The evolution of logistics carries significant strategic implications for entrepreneurship and innovation. As logistics systems become increasingly efficient, integrated, and driven by technology, they open up new opportunities and alter competitive dynamics across various industries. Innovations in logistics highlight the importance of enhancing processes through knowledge sharing, technology utilization, and collaboration with partners within the value chain. This approach underscores the necessity for logistics service providers to engage closely with business partners to generate value for the entire chain. Dynamic resources, such as human and capital assets, skills, networking

capabilities, and core competencies, play a critical role in value creation. Furthermore, factors such as leadership, a long-term focus, organizational structure, culture, incentives, and cross-functional collaboration are essential for fostering logistics innovation (Sun et al., 2022; Saatcioglu et al., 2014).

Innovative logistics systems are facilitating market entry for startups by allowing them to leverage third-party logistics services for warehousing, shipping, and other needs. This enables faster product launches and simplifies market testing. Additionally, there is a growing demand for green logistics solutions, presenting opportunities for businesses committed to reducing their carbon footprints and enhancing delivery efficiency. The evolution of logistics also makes it easier to offer personalized products and cater to consumer demand for customized experiences. Data analytics allows companies to optimize routes, manage inventory effectively, and make informed business decisions (Sun et al., 2022; Trivellas et al., 2020; Sureeyatanapas et al., 2018; Saatcioglu et al., 2014).

This study aims to define the evolutionary development of traditional logistics theoretically, describe the early stages of green logistics, identify the key differences between green and traditional logistics, and highlight the implications for entrepreneurship and innovation driven by logistics.

Keywords: logistics, green logistics, sustainable development

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THE IMPACT OF STAKEHOLDER MANAGEMENT AND RECOGNITION ON PROJECT SUCCESS IN THE SPANISH AUTOMOTIVE SECTOR

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Abstract:

The automotive industry, a cornerstone of Spain's economy, faces a transformative period marked by rapid technological advancements, environmental concerns, and shifting consumer preferences. These factors necessitate a sophisticated approach to stakeholder management. Stakeholders—both internal and external—wield significant influence over projects and organizational strategies. The diversity and complexity of stakeholder interests in the automotive sector, ranging from suppliers and customers to regulators and investors, underscore the need for effective management practices.

Stakeholder theory, introduced by Freeman (1984) and expanded by Mitchell et al. (1997), highlights the essential role of stakeholders in shaping project outcomes. While stakeholder engagement has been extensively studied in sectors such as construction and chemicals (Karlsen, 2002; Moodley, 2008), there is a notable lack of research focused on the automotive sector in Spain. This study aims to address this gap by examining the impact of key stakeholders on project management success within this sector.

The research explores two primary questions: "Which stakeholders have the most significant impact on project management success in the Spanish automotive sector?" and "What key uncertainties from stakeholder interactions affect project timelines and budgets?" These questions are central to understanding how various forces shape project outcomes and the complexities of stakeholder interactions.

The study's population consists of project teams from major Spanish automotive companies like Seat, Peugeot Citroën Automóviles, Ford España, and Mercedes-Benz España. Given the lack of a comprehensive database of project team members, a snowball

sampling technique was used.

Using a non-probability snowball sampling approach, a sample of 109 professionals, including Project Team Members, Project Directors, and Business Analysts, was surveyed through an online questionnaire. This method was chosen for its efficiency, cost-effectiveness, and alignment with digital communication practices.

The research evaluated how stakeholder collaboration and regulatory uncertainties impact project success in the Spanish automotive sector using Structural Equation Modeling (SEM). Four hypotheses related to stakeholder management and regulatory compliance were tested.

The first hypothesis (H1) proposed that collaboration with value chain stakeholders, specifically customers and suppliers, positively influences project success. The SEM analysis confirmed this, showing a significant positive effect between Stakeholder Collaboration (SC) and Project Success (PS). Collaboration with customers had a more pronounced impact compared to suppliers. These findings align with Freeman's Stakeholder Theory and existing literature emphasizing the importance of stakeholder engagement (PMI, 2017; Zwikael & Smyrk, 2012). Effective stakeholder collaboration enhances project execution and reduces risks, which is crucial in the complex automotive industry.

The second hypothesis (H2) suggested that firms with strong customer collaboration experience better project management success. This hypothesis was validated, showing that robust customer collaboration reduces delays and budget overruns. Effective engagement with customers aligns project deliverables with their expectations, minimizing risks related to project timelines and budgets. This result supports previous research highlighting the critical role of customer collaboration in project success (Hsiao & Shih, 2015; Yang et al., 2011; Müller & Turner, 2010).

The study also tested two additional hypotheses related to uncertainties arising from stakeholder management and regulatory compliance:

The third hypothesis (H3) proposed that inadequate recognition of external stakeholders necessitates increased budget allocation to address suboptimal decisions. Results supported this hypothesis, revealing a significant correlation between Stakeholder Importance (SI) and Budget Increase (BI). Effective stakeholder recognition is crucial for controlling costs and avoiding project delays (Mitchell et al., 1997; Olander & Landin, 2005). In the Spanish automotive sector, recognizing the importance of stakeholders is essential for managing project budgets effectively.

The fourth hypothesis (H4) posited that a lack of initial consensus on regulatory and compliance requirements leads to scope creep and schedule delays. The analysis confirmed this hypothesis, showing a significant relationship between Regulatory and Compliance Uncertainty (RCU) and Scope Creep and Schedule Delays (SCD). This highlights the substantial impact of regulatory uncertainty on project scope and scheduling issues, underscoring the need for proactive regulatory planning.

In summary, this research underscores the importance of effective stakeholder

collaboration and proactive regulatory management in achieving project success within the Spanish automotive sector. Enhanced collaboration with customers and suppliers significantly improves project performance, addressing challenges such as delays and budget increases. Recognizing stakeholder importance and managing regulatory uncertainties are crucial for controlling project budgets and schedules effectively.
This study contributes to existing knowledge by providing empirical evidence on how stakeholder engagement and regulatory compliance influence project outcomes in the automotive industry. It validates and extends theoretical frameworks such as Freeman's Stakeholder Theory by demonstrating the direct impact of stakeholder collaboration and regulatory management on project success. The use of Structural Equation Modeling (SEM) offers a rigorous approach to understanding these dynamics and highlights practical implications for project management in a sector characterized by complex supply chains and dynamic regulatory environments.

Keywords: Stakeholder Collaboration; Project Success and Automotive Industry

Resumen:

La industria automotriz, pilar fundamental de la economía española, atraviesa una etapa de transformación marcada por rápidos avances tecnológicos, preocupaciones medioambientales y cambios en las preferencias de los consumidores. Estos factores exigen un enfoque sofisticado en la gestión de los stakeholders. Los stakeholders—tanto internos como externos—tienen una influencia considerable en los proyectos y en las estrategias organizacionales. La diversidad y complejidad de los intereses de los stakeholders en el sector automotriz, que incluyen desde proveedores y clientes hasta reguladores e inversores, subrayan la necesidad de prácticas de gestión eficaces.

La teoría de los stakeholders, propuesta por Freeman (1984) y ampliada por Mitchell et al. (1997), destaca el papel crucial de los stakeholders en la configuración de los resultados de los proyectos. Aunque el compromiso con los stakeholders ha sido extensamente estudiado en sectores como la construcción y la química (Karlsen, 2002; Moodley, 2008), hay una notable carencia de investigación centrada en el sector automotriz en España. Este estudio pretende llenar este vacío al analizar el impacto de los stakeholders clave en el éxito de la gestión de proyectos dentro de este sector.

La investigación aborda dos preguntas principales: "¿Qué stakeholders tienen el mayor impacto en el éxito de la gestión de proyectos en el sector automotriz español?" y "¿Qué incertidumbres clave derivadas de las interacciones con los stakeholders afectan los plazos y presupuestos de los proyectos?" Estas preguntas son fundamentales para entender cómo las diversas fuerzas moldean los resultados de los proyectos y las complejidades de las interacciones con los stakeholders.

La población del estudio está compuesta por equipos de proyectos de grandes empresas automotrices españolas como Seat, Peugeot Citroën Automóviles, Ford España y Mercedes-Benz España. Dada la falta de una base de datos completa de miembros de equipos de proyectos, se utilizó una técnica de muestreo en cadena.

Mediante un enfoque de muestreo no probabilístico en cadena, se encuestó a una muestra de 109 profesionales, incluidos miembros de equipos de proyectos, directores de

proyectos y analistas de negocio, a través de un cuestionario online.

La investigación evaluó cómo la colaboración con los stakeholders y las incertidumbres regulatorias afectan el éxito de los proyectos en el sector automotriz español utilizando el Modelado de Ecuaciones Estructurales (SEM). Se probaron cuatro hipótesis relacionadas con la gestión de stakeholders y el cumplimiento normativo.

La primera hipótesis (H1) proponía que la colaboración con stakeholders de la cadena de valor, específicamente clientes y proveedores, influye positivamente en el éxito del proyecto. El análisis SEM confirmó esta hipótesis, mostrando un efecto positivo significativo entre la Colaboración con Stakeholders (SC) y el Éxito del Proyecto (PS). La colaboración con los clientes tuvo un impacto más pronunciado en comparación con la colaboración con los proveedores. Estos hallazgos se alinean con la Teoría de los Stakeholders de Freeman y con la literatura existente que enfatiza la importancia del compromiso con los stakeholders (PMI, 2017; Zwikael & Smyrk, 2012). La colaboración eficaz con los stakeholders mejora la ejecución del proyecto y reduce los riesgos, lo cual es crucial en la compleja industria automotriz.

La segunda hipótesis (H2) sugería que las empresas con una fuerte colaboración con los clientes experimentan un mayor éxito en la gestión de proyectos. Esta hipótesis fue validada, mostrando que una colaboración sólida con los clientes reduce los retrasos y los sobrecostes. Un compromiso efectivo con los clientes alinea los entregables del proyecto con sus expectativas, minimizando riesgos relacionados con los plazos y presupuestos del proyecto. Este resultado respalda investigaciones previas que destacan el papel crítico de la colaboración con los clientes en el éxito de los proyectos (Hsiao & Shih, 2015; Yang et al., 2011; Müller & Turner, 2010).

El estudio también analizó dos hipótesis adicionales relacionadas con las incertidumbres derivadas de la gestión de stakeholders y el cumplimiento normativo:

La tercera hipótesis (H3) proponía que el reconocimiento inadecuado de los stakeholders externos, como proveedores y clientes, requiere una mayor asignación presupuestaria para mitigar los efectos de decisiones subóptimas. Los resultados apoyaron esta hipótesis, revelando una correlación significativa entre la Importancia de los Stakeholders (SI) y el Aumento del Presupuesto (BI). El reconocimiento efectivo de los stakeholders es crucial para controlar los costos y evitar retrasos en los proyectos (Mitchell et al., 1997; Olander & Landin, 2005). En el sector automotriz español, reconocer la importancia de los stakeholders es esencial para gestionar eficazmente los presupuestos de los proyectos.

La cuarta hipótesis (H4) postulaba que la falta de consenso inicial sobre requisitos regulatorios y de cumplimiento conduce a la ampliación del alcance del proyecto y a retrasos en el calendario. El análisis confirmó esta hipótesis, mostrando una relación significativa entre la Incertidumbre Regulatoria y de Cumplimiento (RCU) y la Ampliación del Alcance y Retrasos en el Calendario (SCD). Esto resalta el impacto considerable de la incertidumbre regulatoria en el alcance del proyecto y los problemas de programación, subrayando la necesidad de una planificación regulatoria proactiva.

En resumen, esta investigación subraya la importancia de una colaboración efectiva con los stakeholders y una gestión regulatoria proactiva para lograr el éxito de los proyectos

dentro del sector automotriz español. La mejora de la colaboración con clientes y proveedores incrementa significativamente el rendimiento del proyecto, abordando desafíos como retrasos y aumentos presupuestarios. Reconocer la importancia de los stakeholders y gestionar las incertidumbres regulatorias son esenciales para controlar de manera efectiva los presupuestos y plazos de los proyectos.

Este estudio contribuye al conocimiento existente proporcionando evidencia empírica sobre cómo el compromiso con los stakeholders y el cumplimiento normativo influyen en los resultados de los proyectos en la industria automotriz. Valida y amplía marcos teóricos como la Teoría de los Stakeholders de Freeman al demostrar el impacto directo de la colaboración con los stakeholders y la gestión regulatoria en el éxito de los proyectos. El uso del Modelado de Ecuaciones Estructurales (SEM) ofrece un enfoque riguroso para entender estas dinámicas y resalta las implicaciones prácticas para la gestión de proyectos en un sector caracterizado por sus complejas cadenas de suministro y su entorno regulatorio dinámico.Ç

Palabras clave: Colaboración con los Stakeholders; Éxito del Proyecto e Industria Automotriz

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CRITICAL SUCCESS FACTORS FOR EFFECTIVE STAKEHOLDER MANAGEMENT IN THE SPANISH AUTOMOTIVE INDUSTRY: A COMPREHENSIVE ANALYSIS

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Abstract:

The automotive industry, a critical component of global manufacturing, is currently facing significant challenges due to rapid technological advancements, stringent regulatory requirements, and evolving consumer expectations. In this context, the application of Project Management (PM) practices is increasingly recognized as essential for maintaining competitive advantage and operational efficiency. Although PM methodologies have been widely adopted in sectors such as construction, finance, and technology, their application within the automotive industry—particularly in Spain—remains insufficiently explored despite the sector's considerable economic significance.

This research aims to address this gap by examining the critical success factors (CSFs) that underpin effective stakeholder management in the Spanish automotive sector. The theory of critical success factors, as described in the literature, emphasizes identifying and managing a set of key elements crucial for achieving project objectives (Rockart, 1979). These CSFs vary by context but typically include stakeholder alignment, risk management, and regulatory compliance in the automotive industry. Yang et al. (2009) reinforce this idea by noting that adequate identification of CSFs is essential for the successful planning and execution of projects, especially in sectors characterized by high complexity and interdependence, such as automotive manufacturing.

The automotive industry is characterized by a diverse range of stakeholders, including regulatory bodies, suppliers, customers, and local communities, each playing a crucial role in the success or failure of automotive projects. Effective management of these stakeholders is vital for mitigating risks, preventing delays, and ensuring regulatory

compliance. Given the inherent complexity of automotive projects, which often involve extensive supply chains and a high degree of interdependence, a tailored approach to stakeholder management is necessary.
The study is based on a comprehensive theoretical framework, integrating stakeholder theory as proposed by Freeman (1984) and Mitchell, Agle, and Wood (1997), with project management literature that underscores the importance of stakeholder alignment and engagement (Pinto & Slevin, 1987; Morris, 2013). Additionally, the CSF theory is incorporated, providing a methodological structure for identifying and managing key elements that determine project success (Yang et al., 2009). The research is guided by two main hypotheses:

1. H1: Critical success factors related to effective stakeholder management significantly contribute to the success of projects in the automotive industry.
2. H2: Project management success in the automotive industry is enhanced in companies that actively manage changes in stakeholder interests by engaging them throughout the project lifecycle.
3.

To empirically evaluate these hypotheses, a quantitative research design was employed, adhering to methodological standards set by Hair et al. (2014) and Malhotra (2012). Data were collected via an online questionnaire, distributed using a non-probability snowball sampling method. The study's population consisted of project teams from major Spanish automotive firms, including Seat, Peugeot Citroën Automóviles, Ford España, and Mercedes-Benz España. Due to the lack of a comprehensive database of project team members, a chain-referral sampling technique was utilized to gather participants, resulting in a sample of 109 professionals, including project managers, engineers, and supply chain managers.

The data were analyzed using Structural Equation Modeling (SEM) to validate the proposed hypotheses and identify the most influential CSFs. Preliminary findings confirmed that effective stakeholder management is indeed a critical determinant of project success in the automotive sector. Notably, the management of changes in stakeholder interests emerged as a particularly impactful factor. This outcome aligns with established literature, which highlights the dynamic and complex nature of stakeholder management in large-scale projects (Pinto & Slevin, 1987; Freeman, 1984; Yang et al., 2009). Additionally, other CSFs, such as conflict resolution and the management of stakeholder influence, were also identified as crucial for achieving successful project outcomes.
The hypothesis positing that ongoing stakeholder engagement throughout the project lifecycle enhances project success received moderate support. The SEM model indicated a reasonably good fit, though some areas of misfit in the goodness-of-fit indices suggest that while stakeholder engagement is critical, it must be integrated into a broader strategic framework. This finding is consistent with the perspectives of Mitchell et al. (1997), who emphasize the importance of a comprehensive understanding of stakeholder dynamics to effectively anticipate and manage their impacts.

The findings of this study have significant practical implications for the Spanish automotive industry, underscoring the need for flexible and adaptive stakeholder management practices. This is particularly vital in a sector characterized by rapid technological advancements and a complex regulatory environment. While the study confirms the importance of engaging stakeholders throughout the project lifecycle, it also

indicates that this engagement alone is insufficient. Achieving optimal project outcomes requires integrating stakeholder management with broader strategic initiatives, including technological innovation, process optimization, and strict regulatory compliance.
This research further enriches the body of knowledge on stakeholder management by providing industry-specific insights with practical relevance for both professionals and policymakers. It advocates for a comprehensive approach to project management that not only prioritizes stakeholder engagement but also addresses the unique challenges posed by the complex and evolving landscape of the automotive sector. By adopting such a holistic strategy, companies within the Spanish automotive industry can enhance their project management practices, improve collaboration across supply chains, and foster sustainable development, thereby ensuring long-term competitiveness and success in an increasingly dynamic global market.

In conclusion, this research validates the fundamental role of effective stakeholder management in driving project success within the Spanish automotive industry. The findings underscore the need for a robust project management strategy that integrates proactive stakeholder engagement with strategic investments in technology and process improvements. Such an approach will better position companies in the Spanish automotive sector to navigate the complexities of their projects, ensuring not only successful outcomes but also sustained competitiveness and resilience in the face of global industry shifts.

Keywords: Stakeholder Management; Automotive Industry; Project Management (PM) and Critical Success Factors (CSFs)

Resumen:

La industria automotriz, esencial para la economía global, enfrenta desafíos significativos derivados de los rápidos avances tecnológicos, las rigurosas regulaciones y las cambiantes expectativas de los consumidores. En este contexto, la adopción de prácticas de gestión de proyectos (PM) es fundamental para mantener la ventaja competitiva y la eficiencia operativa. A pesar de que las metodologías de PM han sido extensamente adoptadas en sectores como la construcción, las finanzas y la tecnología, su aplicación en la industria automotriz, especialmente en España, sigue siendo relativamente poco explorada, a pesar de la considerable importancia económica de este sector.

El objetivo de esta investigación es abordar esta laguna analítica mediante la evaluación de los factores críticos de éxito (CSF) que sustentan una gestión eficaz de los grupos de interés en el sector automotriz español. La teoría de los CSF, tal como la describe Rockart (1979), se centra en identificar y gestionar un conjunto de elementos clave que son fundamentales para alcanzar los objetivos de un proyecto. En la industria automotriz, estos CSF típicamente abarcan la alineación de los grupos de interés, la gestión de riesgos y el cumplimiento normativo. La investigación de Yang et al. (2009) refuerza esta perspectiva al destacar que una adecuada identificación de los CSF es crucial para la planificación y ejecución exitosa de proyectos, especialmente en sectores caracterizados por su alta complejidad e interdependencia, como es el caso de la automoción.

La industria automotriz se distingue por su amplia variedad de partes interesadas, incluidos organismos reguladores, proveedores, clientes y comunidades locales, cada uno

desempeñando un papel esencial en el éxito o fracaso de los proyectos automotrices. La gestión efectiva de estos grupos es vital para mitigar riesgos, evitar retrasos y garantizar el cumplimiento de las normativas. Debido a la complejidad inherente de los proyectos automotrices, que frecuentemente involucran cadenas de suministro extensas y un elevado grado de interdependencia, se requiere un enfoque especializado para la gestión de los grupos de interés.

Este estudio se basa en un marco teórico integral que combina la teoría de los grupos de interés de Freeman (1984) y la teoría de la identificación y saliencia de Mitchell, Agle y Wood (1997) con la literatura de gestión de proyectos que subraya la importancia de la alineación y el compromiso de los grupos de interés (Pinto & Slevin, 1987; Morris, 2013). Adicionalmente, se incorpora la teoría de los CSF para proporcionar una estructura metodológica que facilite la identificación y gestión de los elementos clave determinantes del éxito del proyecto (Yang et al., 2009). Las hipótesis centrales de la investigación son:

1. H1: Los factores críticos de éxito relacionados con una gestión efectiva de los grupos de interés contribuyen significativamente al éxito de los proyectos en la industria automotriz.
2. H2: El éxito en la gestión de proyectos en la industria automotriz mejora en las empresas que gestionan activamente los cambios en los intereses de los grupos de interés a lo largo del ciclo de vida del proyecto.
3.

Para evaluar estas hipótesis, se empleó un diseño de investigación cuantitativo siguiendo los estándares metodológicos de Hair et al. (2014) y Malhotra (2012). Se recolectaron datos mediante un cuestionario online, utilizando un método de muestreo no probabilístico en cadena. La muestra consistió en 109 profesionales de proyectos de importantes empresas automotrices españolas, incluyendo Seat, Peugeot Citroën Automóviles, Ford España y Mercedes-Benz España. Dado que no se dispuso de una base de datos completa de miembros de equipos de proyectos, se utilizó una técnica de muestreo en cadena para reunir a los participantes.

Los datos fueron analizados utilizando un modelo de ecuaciones estructurales (SEM) para validar las hipótesis e identificar los CSF más influyentes. Los hallazgos preliminares confirmaron que la gestión efectiva de los grupos de interés es un determinante crítico del éxito de los proyectos en la industria automotriz. En particular, la gestión de los cambios en los intereses de los grupos de interés emergió como un factor especialmente significativo. Estos resultados están en consonancia con la literatura existente que destaca la naturaleza dinámica y compleja de la gestión de los grupos de interés en proyectos de gran escala (Pinto & Slevin, 1987; Freeman, 1984; Yang et al., 2009). Asimismo, se identificaron otros CSF, como la resolución de conflictos y la gestión de la influencia de los grupos de interés, como esenciales para alcanzar resultados exitosos.

La hipótesis que postula que el compromiso continuo de los grupos de interés a lo largo del ciclo de vida del proyecto mejora el éxito del proyecto recibió apoyo moderado. El modelo SEM mostró un ajuste razonablemente bueno, aunque algunos índices de bondad de ajuste sugieren que el compromiso de los grupos de interés debe integrarse dentro de un marco estratégico más amplio. Este hallazgo es consistente con las perspectivas de Mitchell et al. (1997), que enfatizan la necesidad de una comprensión integral de la dinámica de los grupos de interés para anticipar y gestionar eficazmente sus impactos.
Los hallazgos de esta investigación tienen implicaciones prácticas significativas para la

industria automotriz española, destacando la necesidad de implementar prácticas de gestión de grupos de interés flexibles y adaptativas. Esto resulta particularmente crítico en un sector caracterizado por rápidos avances tecnológicos y un entorno regulador complejo. Aunque el estudio confirma la importancia del compromiso de los grupos de interés a lo largo del ciclo de vida del proyecto, también indica que este compromiso por sí solo es insuficiente. Para obtener resultados óptimos en los proyectos, es necesario integrar la gestión de los grupos de interés con estrategias más amplias que incluyan la innovación tecnológica, la optimización de procesos y el estricto cumplimiento normativo.

Esta investigación enriquece el conocimiento sobre la gestión de grupos de interés, proporcionando insights específicos del sector. Aboga por un enfoque integral de la gestión de proyectos que no solo priorice el compromiso de los grupos de interés, sino que también aborde los desafíos únicos que plantea el futuro complejo y en evolución del sector automotriz. Adoptar una estrategia holística permitirá a las empresas en la industria automotriz española mejorar sus prácticas de gestión de proyectos, fortalecer la colaboración en las cadenas de suministro y fomentar un desarrollo sostenible, asegurando así la competitividad y el éxito a largo plazo en un mercado global cada vez más dinámico.

En conclusión, la investigación valida el papel fundamental de una gestión efectiva de los grupos de interés en el éxito de los proyectos en la industria automotriz española. Los hallazgos subrayan la necesidad de una estrategia robusta de gestión de proyectos que integre un compromiso proactivo con los grupos de interés con inversiones estratégicas en tecnología y mejoras de procesos. Este enfoque permitirá a las empresas del sector automotriz español navegar con éxito las complejidades de sus proyectos y mantener una competitividad y resiliencia sostenidas frente a los cambios globales en la industria.

Palabras clave: Gestión de los grupos de interés; Industria automotriz; Gestión de Proyectos (PM) y Factores Críticos de Éxito (CSF)

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GESTIÓN DE LA INNOVACIÓN EN INDUSTRIAS CREATIVAS. EL CASO DE "CASA DE SALUD" EN CONCEPCIÓN, CHILE.

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Resumen

Las industrias creativas se han transformado en un pilar clave de la economía del presente siglo y es de esperar que su papel sea cada vez más relevante (Jaw et al., 2012; Koch et al., 2023; Pavlovaitė, 2022), en especial en término de competitividad (Pavlovaitė, 2022), aunque su impacto en el bienestar de las regiones y países este condicionado en parte por el nivel de desarrollo de los territorios (Boix Domenech et al., 2022).

Por su parte, parece ser que la literatura académica no ha profundizado en los modelos de gestión de la innovación aplicables a las industrias creativas y los modelos usuales pueden no ser fácilmente adaptables a los emprendimientos culturales (Landoni et al., 2020).

Es así como el objetivo de la presente investigación es dilucidar algunos elementos claves en la gestión de la innovación en industrias creativas, analizando en profundidad el caso del espacio cultural "Casa de Salud", sus principales actividades y la gestión de las diferentes unidades de negocio y emprendimientos conexos, es decir, aquellas características innovativas que expliquen su relativo éxito y continuidad en el tiempo.

El espacio cultural "Casa de Salud" es un emprendimiento con más de una década de trayectoria, que combina servicios de restauración, producción musical, sala de eventos, presentaciones musicales en vivo y marketing digital, entre otras actividades del ámbito creativo, y se ha convertido en el último tiempo en un referente cultural en el ámbito sudamericano. Su fundador y líder, Germán Estrada, tiene una vasta trayectoria como gestor cultural, empresario gastronómico, musico y poeta, que le ha permitido interactuar con numerosos creadores, principalmente chilenos y sudamericanos.

Una definición canónica de las industrias creativas dice relación con aquellas que tienen su origen en la creatividad, destrezas y talentos individuales con un potencial para generar desarrollo y empleo a través de la generación y explotación de la propiedad intelectual (Landoni et al., 2020; Ministerial Creative Industries Strategy Group, 2001).

Se considera que, en general, los modos de innovación, que son la forma como las empresas y emprendedores aprenden y, por tanto, generan, difunden y explotan innovaciones, son: STI (ciencia tecnología e innovación), que enfatiza el conocimiento formal (codificado principalmente en patentes y publicaciones); y por otro lado, el modo DUI (hacer, usar e interactuar), asociado a un conocimiento más tácito.

Por su parte, el tipo de conocimiento asociado con cada modo podría definirse como: **analítico**, esto es, el conocimiento generado para comprender y explicar las características del universo, para el modo STI; **sintético**, es decir, el conocimiento desarrollado para diseñar algo que funciona como solución a un problema práctico, para el modo DUI (Asheim et al., 2015; Asheim & Coenen, 2005). No obstante, existe un tercer tipo, el **simbólico**, que es el conocimiento para crear significado cultural a través de la transmisión en un medio sensible y afectivo, que por lo general se crea mediante el intercambio en comunidades informales y profesionales, a menudo en un contexto local, y el cual juega un rol central en las industrias creativas (Asheim et al., 2015; Koch, 2023).

Por otro lado, los emprendedores en este tipo de industrias son individuos altamente creativos que se mueven entre la realización personal (aspiración artística) y los imperativos del mercado (rentabilidad y sobrevivencia, principalmente) (Koch et al., 2023). En esta línea, las industrias creativas enfrentan una demanda poco predecible y muy deseosa de novedad, sumado muchas veces a una fuerte competencia, lo que se transforma en desafíos muy relevantes de, entre otras cosas, innovar constantemente (Landoni et al., 2020; Strøm et al., 2020).

Por lo mismo, existiría cierta contradicción o al menos ciertos aspectos de tención, entre financiar, desarrollar y continuamente innovar en artefactos culturales que tengan cierta calidad artística, pero realizados con una producción económicamente sostenible, cuestión que tal vez puede entenderse mejor como una "paradoja" entre el enfoque cultural y el de negocio, pues no se trataría de simples "opuestos", sino más bien de un fenómeno de interrelación, persistencia y simultaneidad (Koch et al., 2023; Strøm, 2020)

Por último, se plantean, en principio, tres preguntas de investigación

1. ¿Cuál es la estrategia y modelo de gestión de la innovación y qué papel juegan la experimentación y las formas de aprendizaje en la gestión del riesgo?
2. ¿Qué papel juega la generación de redes, así como la visión y liderazgo del fundador en la gestión de la innovación?
3. ¿Cómo se resuelve la tensión entre la creatividad y calidad de la propuesta cultural y la sostenibilidad y rentabilidad del negocio?

Algunos resultados esperados están relacionados con cada pregunta y se pueden resumir en; el nacimiento y evolución de nuevas unidades de negocio, como modelo de gestión de la innovación; las redes son relevantes en la calidad de la propuesta y el liderazgo aporta visión y sentido de pertenencia; la tención parece resolverse en la propuesta cultural, pero asegurando la continuidad del negocio.

Por su parte, siendo una investigación en curso, el enfoque metodológico a utilizar es del tipo cualitativo, pues se propone un conjunto de preguntas que permiten explorar y describir un determinado fenómeno (Hernández-Sampieri et al., 2006) y, en específico, se pretende utilizar el **análisis de casos**, pues este permite incluir ciertas condiciones contextuales al dar cuenta de un fenómeno real y concreto (Yin, 2003), pudiendo además usarse datos de variados tipos de fuentes (Thomas, 2021).

La información fundamental sobre el caso ha sido extraída de una serie de entrevistas semi estructuradas realizadas (y por realizarse) durante el segundo semestre del 2024, tanto al emprendedor, sus principales asociados y colaboradores, como a una serie de

actores vinculados directa o indirectamente con el emprendimiento.

Palabras clave Industrias creativas; Gestión del conocimiento; Gestión de la innovación; Innovación; Creatividad

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SUSTAINABLE INNOVATION IN SOCIAL ENTREPRENEURSHIP: KEY DRIVERS AND CHALLENGES IN CULTURAL SETTINGS

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Abstract
The present study analyzes how SEs related to cultural settings integrate sustainable innovation with the purpose, by highlighting key drivers and challenges of their strategies.

Theoretical Background
In recent decades, the evolving social, economic, and technological dynamics have markedly influenced global and local contexts, bringing forth innovative and disruptive value assets. Within this context, there has been an increasing focus on a distinct category of non-governmental entities known as social enterprises (SEs) (Battilana & Lee 2014; Wry & York, 2017). Social entrepreneurship is a fluid and contested concept (de Bruin & Teasdale, 2019) that embraces various disciplines including management, social policy, political science, and economics, often interpreted differently according to cultural, geographic, and historical contexts. Entrepreneurship driven by social challenges represents a recent and rapidly growing area of research and practice (de Bruin & Teasdale, 2019; Chell et al., 2010; Anderson & Dees, 2006). This phenomenon is considered a social core around which citizens pursue collective well-being, as well as a key enabler of local development.

As a direct consequence, SEs often focus on social innovation and process/organizational innovation to enhance their societal impact and financial sustainability (Harsanto et al., 2022). Therefore, innovativeness is emphasized as a critical component of SEs' ability to utilize limited resources and manage demands from diverse stakeholders (Poledrini et al., 2020; Tortia et al., 2020; Di Domenico et al., 2010).

In this scenario, an increasingly discussed and explored topic these days is represented by sustainable innovation. The social purpose of sustainability innovation is long-term human coexistence on Earth. Decisions are made based on the concept of sustainability innovation at the international, national, and personal levels (Lüdeke & Florian, 2020). The goal of "sustainable innovation" is to mitigate these unforeseen social and environmental effects. It suggests that businesses can offer goods and services that will ultimately benefit society as well as themselves. Intentionally altering a business's goods, services, or procedures to provide long-term environmental and social advantages in addition to generating financial gains for the enterprise is known as sustainable innovation (Oskam et al., 2021). These scenario assumptions underline the opening of a gap in studies in which sustainable innovation approaches and subsectorial frameworks dialogue with each other, with a particular focus on the cultural and creative industry. Specifically, cultural and creative scenario represents a lever on which the social processes of which these values are carriers can express themselves, potentially generating social change (Kagan, 2008). The result is a singular perspective of social entrepreneurship which identifies the latter as an important aspect of the evolution of the cultural and creative sector, capable of generating significant outcomes including promoting personal reflection and satisfaction and improving community well-being. Said scenario assumptions are consistent with the paucity of scientific studies dedicated to the sub-sectoral analysis of social entrepreneurship guided by art and culture (Woronkowicz et al., 2020), unlike the business and managerial field whose focus, of a general nature, dominates the stages of developed and non-developed countries (Phillips et al., 2024).

Methodology

A qualitative comparative analysis (QCA) on a multiple case study has been adopted (Meuer & Fiss, 2020). As a set of research tools that combines detailed within-case analysis and formalized cross-case comparisons (Legewie, 2013), the QCA allows researchers to discover common causal conditions underlying a given result of interest (Greckhamer et al., 2008). This study uses a fuzzy-set analysis in QCA processing (Zadeh, 1965).

Results

The analysis suggests that for social enterprises operating in the cultural sector, adopting sustainability dissemination practices and building strategic partnerships oriented towards sustainability are both necessary and sufficient conditions for achieving a significant impact in knowledge management practices. Challenges such as lack of formalization and scarce resources require a systematic approach and innovative strategies. At the same time, the opportunities offered by creativity and culture enable social enterprises to position themselves as key actors for sustainable development and social cohesion.

Implications

The multiple case study aims to contribute to the studies on the topic by defining the theoretical framework drawn from value proposition processes, organizational structures, and external relationships. In this scenario, the research activity will aim to strengthen knowledge production in cultural settings by providing a comparative study of the profiling models (Bifulco & Iodice, 2023).

Future research should further explore their growing attitude to achieve competitive advantage through cross-sectoral and transdisciplinary collaborations.

Keywords: social entrepreneurship, sustainable innovation, social innovation, culture

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HOW TO PROMOTE WINE TOURISM: AN EXPLORATORY SURVEY OF THE WINERIES IN THE PROVINCE OF TURIN (ITALY)

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Abstract

In recent years, the international wine market has faced significant challenges, including a drop in consumption and an increasing erosion of wineries' profit margins. According to data from ISTAT, the UIV-ISMEA Observatory and the Centro Studi Management DiVino, the same dynamics have been recorded in the Italian market with declining production of 39 million liters in 2023 and a per capita consumption of 37 liters, while wineries have seen an increase in the costs of raw materials and energy that has further eroded operating margins (Beltramo et al 2024, Nomisma 2023).

This situation has prompted many Italian wineries to look for new ways to maintain profitability and wine tourism has proven to be an increasingly important channel for maintaining profitability.
This growing interest is reflected in the current landscape, where wine has become not only an economic asset but also an asset to preserve and enhance the authenticity of the local cultural heritage and landscape (Fatichenti and Fiorillo, 2015). Moreover, numerous stakeholders are involved in territorial policies besides producers, tour operators, restaurateurs, visitors and the local community (Gonçalves and Maduro, 2015; Rabbiosi, 2016).

According to data from Ismea and Aite (Italian Food and Wine Tourism Association) in the first survey on food and wine tourism in Italy, wine tourism involves around 13.4 million Italians, now representing the motivation for travel for many foreign tourists (Garibaldi 2021). Wine tourism offers wine lovers and travellers seeking unique experiences the opportunity to immerse themselves in viticulture and wine production, exploring local traditions, vineyard landscapes and the unique flavours of regional wines (Amaral *et al.*, 2024; Rašan *et al.*, 2024). This type of tourism goes beyond wine tasting and encompasses a wide range of activities, including visits to wineries, outdoor walks among vineyards, and participation in wine-related events (Martínez-Falcó *et* al., 2024; Sthapit *et al.*, 2024).

Among the main Italian wine-growing regions, Piedmont plays an important role especially for quality wines with 60 Geographical Indications including Barolo and Barbaresco, representing 15% of geographical indications at national level. In Piedmont, the provinces of Cuneo, Asti and Alessandria have a territorial vocation for quality wine production both in volume and value. On the other hand, wine production in the province of Turin is limited compared to the other provinces with a wine-growing ecosystem

composed of more than 50 companies with 7 geographical indications among which the best known wines are “Erba luce di Caluso PDO” and “Freisa di Chieri PDO”.

The Piedmont Region has developed tourism policies over the last 20 years and is now one of Italy's main tourist destinations with over 6 million arrivals, 2.7 of which come from the province of Turin (Beltramo et al 2024). Moreover, tourists recognise wine and food as one of the strengths of Piedmont's tourism offer. In this context, public and private stakeholders in the province of Turin are collaborating to develop wine and food tourism, with wine companies playing a central role.

As part of the research activity, a survey was conducted on wineries in the province of Turin (Bregoli *et al.*, 2016; Festa *et al.*, 2020; Mamalis *et al.*, 2020). The research team developed a questionnaire, which was subsequently validated by a group of experts. The questionnaire for wineries was designed to investigate mainly the following aspects: the types of wine produced; the sales channels used; the communication and promotion strategies employed; the proposal of tourist activities accompanying the wine production and sale activity; the wine tourism promotion initiatives. The survey was administered using CAWI methodology from January to March 2023 and in second stage interviewed. 22 wineries participated in this research.

The main results have been summarized in a SWOC analysis. The strengths are market differentiation, the economy of experiences, and Turin and its province, along with all of Piedmont, becoming a tourist destination. The weaknesses are strategic dilemmas for smaller wineries, wines from the province of Turin little known to the public and offer of wine tourism experiences not yet particularly developed. The opportunities are growth potential, digital and environmental transition, some vineyards in marginal territories and generational change of owners. Finally the main challenges are inclusive communication, partenership with other territorial stakeholders and wine tourism and global market.

This exploratory survey allows us to gather useful information on the area's wineries and enables us to state that wine tourism in the province of Turin is still at an early stage and that it is necessary to develop a pathway in which wine can be included in a structured way in the territorial tourist offer in order to enrich the experiences that tourists can enjoy.

Keywords: wine, wineries; wine tourism, Piedmont, Turin culture

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WHAT MAKES ENTREPRENEURSHIP AND INNOVATION EDUCATION THRIVE? INTRODUCTION TO THE CASE OF THE CENTER FOR DIGITAL TECHNOLOGY AND MANAGEMENT (CDTM) MODEL IN MUNICH AND VALENCIA.

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Abstract

Higher education centers have increasingly taken on the role of innovation hubs, fostering entrepreneurial activities and technological advances. These institutions serve as catalysts for innovation by providing students with interdisciplinary education, access to cutting-edge technologies, and exposure to entrepreneurial ecosystems (Kayyali, 2023). The transformation of university centers into innovation and entrepreneurship ecosystems has been well documented as they leverage the convergence of research, education, and connections with the industry to drive entrepreneurship and ultimately lead to social development and economic growth.

The triple helix model proposed by Etzkowitz in the early 1990s explained that innovation thrives in environments where academia, industry, and government interact closely, creating collaborative ecosystems that stimulate creativity and entrepreneurship (Etzkowitz & Leydesdorff, 2000). This organizational model suggests that collaboration between three types of stakeholders - government, industry, and academia - is essential

for successful innovation. Building upon this framework, the Quadruple Helix introduces a fourth dimension by incorporating the media, cultural public, and civil society. The Quintuple Helix model expands on this by adding a fifth dimension that considers the natural environments within which these societal interactions occur, thereby providing a more comprehensive perspective on innovation (Carayannis et al., 2012).

Universities play a critical role in these ecosystems by bridging the gap between theory and practice, equipping students with both, technical skills and entrepreneurial mindsets. In addition, educational training centers such as the Center for Digital Technology and Management (CDTM) foster an innovation-oriented culture by encouraging problem-based learning, collaboration with industry experts, and real-world project experience.

CDTM is a joint university training center specializing in innovation and technology-based entrepreneurship. It was established in 1998 in Munich, as a joint institution by the Technische Universität München (TUM) and the Ludwig-Maximilians Universität (LMU). At present, CDTM has two centers in Europe, in Munich (Germany) and Valencia (Spain). Following the same model, the center was established in Valencia in 2023, as a joint institution of the University of Valencia (UV) and the Polytechnical University of Valencia (UPV) with the support of the local and regional government.

The success of innovation in higher education settings is attributed to several key factors. First, the interdisciplinary nature of innovation centers allows for the cross-pollination of ideas from diverse fields, which enhances creativity and fosters diversity of perspectives. Second, the hands-on, experiential learning approach adopted by these institutions enables students to develop entrepreneurial competencies by translating theoretical knowledge into practical solutions. Furthermore, the availability of resources, such as mentoring by experienced entrepreneurs and access to venture capital, plays a crucial role in fostering start-ups and innovative projects in their early stages. In summary, higher education institutions, particularly those with programs dedicated to innovation and entrepreneurship, play a critical role in nurturing the next generation of innovators and entrepreneurs. By acting as ecosystems that combine education, research, and real-world application, these institutions lay the foundation for sustained innovation and economic progress. Another factor that makes CDTM unique to consider is how this ecosystem is built based on the community and combining the "bottom-up" with institutional support. The feeling of community and ownership makes this work as everyone is generous with what they give, and even students contribute to the development of the Center through assigned task forces (and, therefore, the ecosystem).

A previous study about entrepreneurship education programs and their contribution in Germany shows that CDTM in Munich has significantly contributed to the entrepreneurship scene, with more than 260 companies funded by alumni, founding 7 unicorns, and have collectively raised more than 6 billion USD in funding their start-ups (Froehlich et al., 2023).

In this contribution, we present and analyze, following a qualitative approach, the educational model of the Center for Digital Technology and Management (CDTM) case study based on the pillars of research, education, and entrepreneurship. Following The Triple-Helix model, CDTM is based on the interactions between three main components: academia, government, and industry. In addition to these key factors that give rise to innovation, CDTM presents an innovative model that goes beyond. Some of the

differentiating factors and unique identified are its management and leadership team made up entirely of PhD students who, while managing the center's operations and teaching courses, complement a doctoral program in parallel (research pillar); the strategic support provided by its advisory board, made up of renowned university professors (academy pillar) and the public support and funding (government pillar). On top of that, the core activity is an interdisciplinary add-on Study Program in Technology Management, composed of three courses comprising a whole “innovation cycle” in collaboration with industry partners (industry pillar). These courses range from trend research, to building a functioning prototype with supplementary business model, to a consulting course, fittingly named ‘Entrepreneurship Laboratory’. They aim to build on the students’ interdisciplinary education, allowing for the fostering of innovative solutions to today’s most complex problems.

Keywords: CDTM; educational centers; educational models; innovation ecosystems

Resumen

Los centros de enseñanza superior han asumido cada vez más el papel de polos de innovación, fomentando las actividades empresariales y los avances tecnológicos. Estas instituciones actúan como catalizadores de la innovación proporcionando a los estudiantes una educación interdisciplinar, acceso a tecnologías de vanguardia y exposición a ecosistemas empresariales (Kayyali, 2023). La transformación de los centros universitarios en ecosistemas de innovación y emprendimiento está bien documentada, ya que aprovechan la convergencia de la investigación, la educación y las conexiones con la industria para impulsar el emprendimiento y, en última instancia, conducir al desarrollo social y al crecimiento económico.

El modelo de la triple hélice propuesto por Etzkowitz a principios de los noventa explicaba que la innovación prospera en entornos en los que el mundo académico, la industria y el gobierno interactúan estrechamente, creando ecosistemas de colaboración que estimulan la creatividad y el espíritu empresarial (Etzkowitz & Leydesdorff, 2000) . Este modelo organizativo sugiere que la colaboración entre tres tipos de partes interesadas -el gobierno, la industria y el mundo académico- es esencial para el éxito de la innovación. Partiendo de este marco, la Cuádruple Hélice introduce una cuarta dimensión al incorporar a los medios de comunicación, el público cultural y la sociedad civil. El modelo de la Quíntuple Hélice lo amplía añadiendo una quinta dimensión que considera los entornos naturales en los que se producen estas interacciones sociales, ofreciendo así una perspectiva más completa de la innovación (Carayannis et al., 2012).

Las universidades desempeñan un papel fundamental en estos ecosistemas al tender puentes entre la teoría y la práctica, dotando a los estudiantes tanto de conocimientos técnicos como de mentalidad emprendedora. Además, centros de formación educativa como el Center for Digital Technology and Management (CDTM) fomentan una cultura orientada a la innovación promoviendo el aprendizaje basado en problemas, la colaboración con expertos del sector y la experiencia en proyectos basados en casos reales.

El CDTM es un centro educativo especializado en innovación y emprendimiento de base tecnológica. Fundado en 1998 en Múnich, como institución conjunta de la *Technische*

Universität München (TUM) y la *Ludwig-Maximilians Universität* (LMU). En la actualidad, el CDTM cuenta con dos centros en Europa, en Múnich (Alemania) y Valencia (España). Siguiendo el mismo modelo, el centro se estableció en Valencia en 2023, como institución conjunta de la Universitat de València (UV) y la Universitat Politècnica de València (UPV) con el apoyo del gobierno local y regional.

El éxito de la innovación en este tipo de centros de enseñanza superior se atribuye a varios factores clave. En primer lugar, la naturaleza interdisciplinar de los centros de innovación permite la polinización cruzada de ideas procedentes de diversos ámbitos, lo que potencia la creatividad y fomenta la diversidad de perspectivas. En segundo lugar, el enfoque de aprendizaje práctico y experimental adoptado por estas instituciones permite a los estudiantes desarrollar competencias empresariales al traducir los conocimientos teóricos en soluciones prácticas. Además, la disponibilidad de recursos, como la tutoría por parte de empresarios experimentados y el acceso al capital riesgo, desempeña un papel crucial en el fomento de las empresas de nueva creación o *start-ups* y los proyectos innovadores en sus primeras fases. En resumen, las instituciones de educación superior, en particular las que cuentan con programas dedicados a la innovación y el espíritu empresarial, desempeñan un papel fundamental a la hora de formar a la próxima generación de innovadores y emprendedores. Al actuar como ecosistemas que combinan la educación, la investigación y la aplicación en el mundo real, estas instituciones sientan las bases de la innovación sostenida y el progreso económico. Otro factor a tener en cuenta que hace que el CDTM sea único es cómo se construye este ecosistema basándose en la comunidad y combinando con el apoyo institucional. El sentimiento de comunidad y pertenencia hace que esto funcione, ya que todos son generosos con lo que dan, e incluso los estudiantes contribuyen al desarrollo del Centro a través de grupos de trabajo asignados “task forces” (y, por tanto, del ecosistema).

Un estudio previo sobre los programas de emprendimiento y su contribución en Alemania muestra que el CDTM de Múnich ha contribuido significativamente a la escena empresarial regional, con más de 260 empresas financiadas por antiguos alumnos, fundando 7 unicornios, y recaudado colectivamente más de 6 billones USD en financiación de sus start-ups (Froehlich et al., 2023).

En esta contribución, presentamos y analizamos siguiendo un enfoque cualitativo el modelo educativo del Center for Digital Technology and Management (CDTM) basado en los pilares de investigación, educación y emprendimiento. Siguiendo el modelo de la Triple Hélice, el CDTM se basa en las interacciones entre tres componentes principales: academia, gobierno e industria. Además de estos factores clave que dan lugar a la innovación, el CDTM presenta un modelo innovador que va más allá. Algunos de los factores diferenciadores identificados son su equipo de gestión y liderazgo formado íntegramente por estudiantes predoctorales que, al tiempo que gestionan las operaciones del centro y la impartición de cursos, complementan un programa de doctorado en paralelo (investigación); el apoyo estratégico proporcionado por su consejo asesor, formado por profesores universitarios de renombre (academia) y el apoyo y financiación públicos (gobierno). Además, la actividad central es un Programa de Estudio complementario interdisciplinario en Gestión de la Tecnología, compuesto por tres cursos que comprenden un completo "ciclo de innovación" en colaboración con socios de la industria (pilar de industria). Estos cursos abarcan desde la investigación de tendencias, pasando por la construcción de un prototipo funcional con un modelo de negocio complementario, hasta un curso de consultoría, denominado acertadamente

«Entrepreneurship Laboratory». Su objetivo es aprovechar la formación interdisciplinar de los estudiantes para fomentar soluciones innovadoras a los problemas actuales más complejos.

Palabras clave: CDTM; centros educativos; modelos educativos; ecosistemas

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INFLUENCIA DE SOCIAL MEDIA, CAPACIDADES DINÁMICAS Y ORIENTACIÓN EMPRENDEDORA EN EL DESEMPEÑO DE PEQUEÑAS EMPRESAS EN ENTORNOS DINÁMICOS

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Resumen

El impacto de las capacidades dinámicas sobre el desempeño y su efecto mediador o moderador en la relación entre otras capacidades es aceptado en la literatura. Sin embargo, todavía existen vacíos de conocimiento sobre cómo ciertas capacidades nuevas influyen en dichas relaciones (Bitencourt et al., 2020; Schilke et al., 2018).

A partir de la revisión de literatura (Bitencourt et al., 2020, Fan et al., 2021; Garrido-Moreno et al., 2020; Mention et al., 2019; Qalati et al., 2022; Susanto et al., 2023; Troise et al., 2022; Ye et al., 2022; Wu et al., 2020), se propone un modelo que relaciona las variables dinamismo del entorno, capacidades dinámicas (CD), orientación emprendedora (OE), social media (SM) y desempeño, bajo las siguientes hipótesis: el dinamismo del entorno influye positivamente en las CD, la OE y SM; las capacidades dinámicas, la orientación emprendedora y el uso de social influyen positivamente sobre el desempeño empresarial; existe efecto mediador de CD y OE en la relación de social media con desempeño.

El enfoque de la investigación es cuantitativo. Se analizaron Pymes de todos los sectores de la ciudad de San Luis Potosí (México). El tamaño de la muestra es de 400 (intervalo de confianza del 95% y precisión de 4.88%); con los datos recogidos mediante un cuestionario se elaboró el modelo de ecuaciones estructurales.

El modelo de medida no ajusta según la prueba de chi cuadrada X^2=1528.574 df= 644 (p<.001). No obstante, los indicadores que se consideran para el ajuste del modelo son: el RMSEA de 0.059; las cargas estandarizadas de cada ítem significativas y mayores a 0.700, y R^2 superior a 0.500 en todos los casos, lo cual indica que cada ítem está significativamente representado por la variable latente.

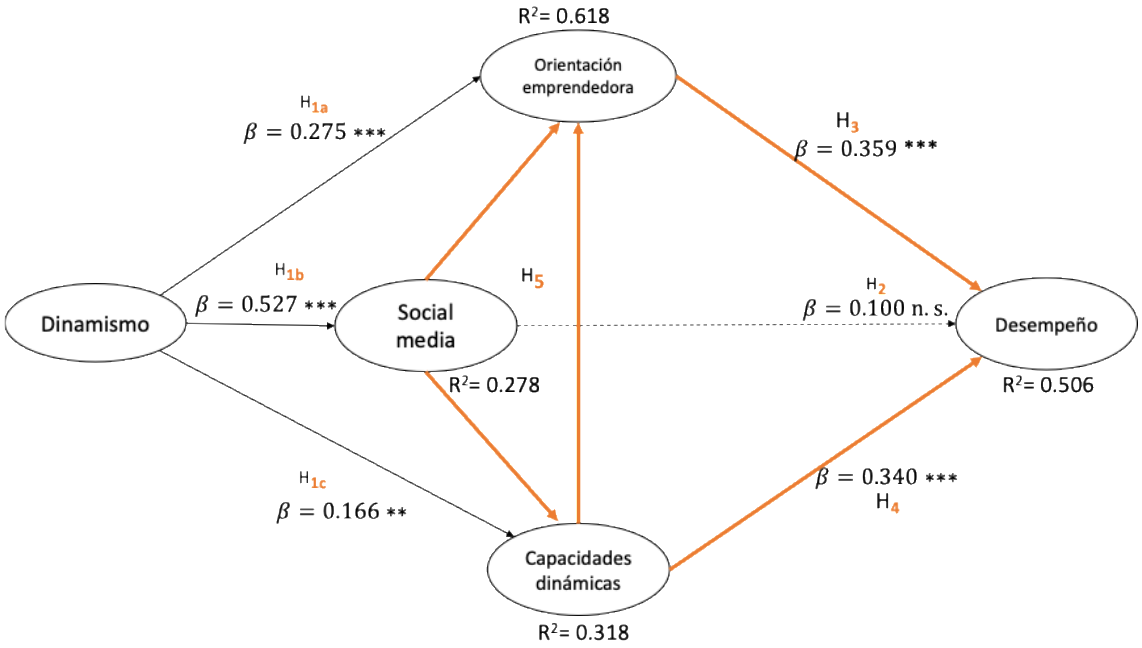
La fiabilidad compuesta es superior a 0.800 y la varianza extraída media superior a 0.500, lo que confirma la validez convergente de los constructos. La validez discriminante se probó con el criterio de Fornell y Larcker (1981).

El modelo estructural (ver figura 1) tiene indicadores de bondad de ajuste CFI, TLI, IFI

que van desde 0.921 a 0.927, y RMSEA 0.059. El R^2 de la variable desempeño es de 0.506, lo cual indica que el modelo explica el 50% de su varianza.

El análisis de efectos indirectos indica que: las capacidades dinámicas y la orientación emprendedora son mediadoras de la relación del social media con el desempeño; social media no es mediadora entre el dinamismo del entorno y el desempeño, pero sí lo es entre el dinamismo del entorno y la orientación emprendedora, así como con las capacidades dinámicas.

Finalmente, las posiciones mediadoras de las capacidades dinámicas, de social media y orientación emprendedora se ven evidenciadas en el coeficiente de efecto indirecto que es mayor que el efecto directo por sí mismo. Incluso en el caso de SM y su influencia directa hacia el desempeño, la cual no es significativa, pero sí lo es a través de CD y OE.



Nota: p <0.05; ** p <0.01; *** p <0.001; n.s.= no significativo.
X^2= 1546.8 (p<.001).

Figura 1. Resultados del modelo estructural

En definitiva, el entorno dinámico explorado influye en el uso de social media, la orientación emprendedora y el despliegue de las capacidades dinámicas de las empresas; la OE y las CD influyen positivamente en el desempeño. En cuanto al uso de social media, si bien influye sobre el desempeño a través de su efecto sobre CD y OE, no tiene impacto directo significativo en los resultados empresariales. En línea con otros trabajos (Garrido-Moreno et al., 2020; Qalati et al., 2021; Ye et al., 2022), se concluye que para que el uso de social media sea relevante, las empresas deben hacerlo de manera articulada con el resto de la estrategia empresarial.

Palabras clave: social media; capacidades dinámicas; orientación emprendedora; desempeño; pequeñas empresas.

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EL ENFOQUE DE INTRAEMPRENDIMIENTO TIPO CLÚSTER EN EMPRESAS FAMILIARES COMO FACTOR DE DESARROLLO REGIONAL EN LA AGROINDUSTRIA DE MÉXICO.

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Abstract

Family businesses are essential for local, economic, professional, and family development in Mexico, as they contribute to 67% of employment in the country (PWC, 2021). Of the total number of businesses in Mexico, 83% are family-owned (PWC, 2021; San Martín & Durán, 2017). Within this percentage, 32% are managed by family members, 32% are under family control, and 23% are family-owned (PWC, 2021). The presence of family businesses in regional productive structures can impact aspects such as geographical, cognitive, social, organizational, and institutional proximity. This can modify the development and interaction of regional factors and processes (Ochoa & Torres, 2017: 127). Now, in the development of competitive strategies for family businesses (FB), entrepreneurship has proven to be a key factor in creating profitability for both the company and the country (Vallmitjana, 2011; Rockefeller, 2004). In the context of the family business, entrepreneurship is manifested in the management of opportunities, either by investing family wealth in new business units or by supporting the generation of income for family members (Flores & Vega, 2013; De la Rosa et al., 2009). Furthermore, in the economic development of businesses, the term "intrapreneur" introduced by authors such as Pinchot and Pellman (1985) and Drucker (1986), involves generating opportunities from a strategic point of view, in resource allocation, organizational structure, and negotiation methods with competitors, which can be seen as innovations in the broad sense of the term (Antoncic, 2003; Hisrich, 2000) from within

organizations that pursue growth opportunities in the market (Stevenson and Jarillo, 1990, cited in Antoncic 2003; Hisrich, 2000, p. 2). This implies that the impact of family businesses on regional development does not solely depend on their proportion in the economies, but on how these businesses create, utilize, and allocate regional resources, as well as their interactions with the environment (Basco, 2015). Developing a dynamic strategy for businesses in the form of clusters can enable them to have a notable effect on regional wealth and employment generation. In line with the above, this study's main objective is to identify the best practices and strategies employed by family businesses through a cluster approach from intrapreneurship, contributing to the regional development of the agroindustry in Mexico. It focuses on family businesses, not only from the economic context but also from the business context and its family dynamics. Using a mixed-method research approach, based on a case study of the agroindustry in Mexico, through literature review and descriptive documentary analysis, the study identifies best practices and strategies that favor intrapreneurship and the formation of clusters within family businesses. In this context, the results so far indicate that the factor influencing both the survival of family businesses and regional development is intrapreneurship within the family dynamics. This is exemplified by the family protocol as a coordinating instrument within the structure and dynamics of family businesses concerning the interrelation of governance, the family business, and the relationship between the family (Ward and Gallo, 1992; Gallo and Tomaselli, 2006), due to the direct correlation between family members, economic profitability, and business survival (Chua et al., 2011; Leach, 2009). Acting as a catalyst for the survival of family businesses in the market (Geroski, 1995; Segarra and Callejón, 2000), the planning of succession and talent development in family clusters facilitates the transition between generations, creating an environment where knowledge and resources flow, as well as providing a safety net. In this intrapreneurship strategy, the 4 Cs model of competitiveness in family businesses is employed (Continuity, Community, Connection, and Control) (Miller and Breton-Miller, 2006).

Keywords: Intra-preneurship; Family Businesses; Cluster; Regional Development

Resumen

Las empresas familiares son esenciales para el desarrollo local, económico, profesional y familiar en México, ya que, contribuyen en el 67% del empleo en el país (PWC, 2021). Del total de empresas en México, el 83% son de carácter familiar (PWC, 2021; San Martín & Durán, 2017). Dentro de este porcentaje, el 32% son gestionadas por miembros de la familia, el 32% están bajo el control de la familia y el 23% son propiedad de la familia (PWC, 2021). La presencia de empresas familiares en las estructuras productivas regionales puede impactar en aspectos como la proximidad geográfica, cognitiva, social, organizativa e institucional. Esto puede modificar el desarrollo e interacción de los factores y procesos regionales (Ochoa & Torres, 2017: 127). Ahora bien, en el desarrollo de estrategias competitivas para las empresas familiares (EF), el emprendimiento ha demostrado ser un factor clave en la creación de rentabilidad, tanto para la empresa como para el país (Vallmitjana, 2011; Rockefeller, 2004). Es así que, en el contexto de la empresa familiar, el emprendimiento se manifiesta en la gestión de oportunidades, ya sea al invertir el patrimonio familiar en nuevas unidades de negocio o al apoyar la generación de ingresos para los miembros de la familia (Flores & Vega, 2013; De la Rosa et al.,

2009). Ahora bien, en el desarrollo económico en las empresas,el término *intra-preneur* introduccido por autores como Pinchot y Pellman (1985) y Drucker (1986), implica generar coyunturas desde el punto de vista estratégico, en la asignación de recursos, la estructura organizacional y los métodos de negociación con competidores, los cuales pueden ser vistos como innovaciones en el amplio sentido del término (Antoncic 2003; Hisrich, 2000) desde el interior de las organizaciones que persiguien oportunidades de crecimiento en el mercado (Stevenson y Jarillo, 1990, citado en Antoncic 2003; Hisrich, 2000, p. 2). Lo anterior implica que, el impacto de las empresas familiares en el desarrollo regional no depende únicamente de su proporción en las economías, sino de cómo estas empresas crean, utilizan y asignan los recursos regionales, así como, de sus interacciones con el entorno (Basco, 2015;desarrollando la estrategía dinámica de empresas en forma de clúster; este enfoque puede permitirles tener un efecto notable, en la generación de riqueza y empleo regional. Conforme a lo antes mencionado, este estudio tiene como objetivo principal identificar las mejores prácticas y estrategias empleadas por empresas familiares mediante un enfoque de clúster desde el intra-emprendimiento, contribuyendo al desarrollo regional de la agroindustria en México; se centra en las empresas familiares, no solo en la perspectiva del contexto económico, si no también, en el contexto empresarial y su dinámica familiar. Mediante una metodología de enfoque de investigación mixto, con base en un estudio de caso de la agroindustria en México, por medio de una revisión de literatura y análisis documental, de corte descriptivo, identificando las mejores prácticas y estrategias que favorezcan el intra-emprendimiento y la formación de clústeres dentro de las empresas familiares. En este contexto, los resultados hasta el momento arrojan que el factore que ha influido tanto en la supervivencia de las empresas familiares como en el desarrollo regional, es el intraemprendimiento en la dinámica familiar, siendo el caso del protocolo familiar como instrumento coordinador dentro de la estructura y la dinámica de las empresas familiares con respecto a la interrelación de la gobernanza, el negocio familiar y la relación entre la familia (Ward y Gallo,1992; Gallo y Tomaselli, 2006), por la correlación directa entre los familiares, la rentabilidad económica y la supervivencia empresarial (Chua et al, 2011; Leach, 2009). Actuando como un catalizador para las supervivencia de las empresas familiares en el mercado (Geroski, 1995; Segarra y Callejón, 2000); ya que, la planificación de la sucesión y desarrollo de talento en los cluesters familiares facilita la transcisión entre generaciones, creando un entorno donde el conocimiento y los recursos fluyen, además, de proporcionar una red de seguridad; en dicha estrategia de intra-emprendimiento se emplean el modelo de las 4 C de la competitividad en la empresa familiar (Continuidad, Comunidad, Conexión y Control) (Miller y Breton-Miller, 2006).

Palabras clave: Intra-emprendimiento; Empresas Familiares; Clúster; Desarrollo Regional

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SUSTAINABLE TOURISM: THE CASE OF THE GIAHS

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Extended abstract

The concept of Globally Important Agricultural Heritage Systems (GIAHS) defined by the Food and Agriculture Organization of the United Nations refers to "a living, evolving system of human communities in an intricate relationship with their territory, cultural or agricultural landscape or biophysical and wider social environment." (FAO, 2024). Human activities and livelihoods have consistently adapted to the opportunities and constraints presented by the environment, while also modifying the landscape and the biological environment to varying extents (FAO, 2024). The resilience of numerous GIAHS has evolved to address climatic variability and change, including natural hazards, emerging technologies, and shifting social and political conditions and this adaptation aims to ensure food and livelihood security while mitigating risks (FAO, 2024). Since 2005, FAO has designated 89 agricultural heritage systems in 28 countries and 57 of them belong to Asia & Pacific (FAO, 2024).

Tourism is often considered as one of the dynamic conservation and adaptive management approaches in Agricultural Heritage Sites, in fact, tourism developed quickly in these sites, being this contrary to the original intention of agricultural heritage tourism as proposed in the first place (Sun et al., 2021). Allegedly, there are some apparent problems during the tourism development process; "Some threats to Agricultural Heritage Systems are ubiquitous; The tourism development mode in Agricultural Heritage Sites is questionable; Community involvement is difficult to implement; And the negative environmental impacts are easy to overlook." (Sun et al., 2021). Analyzing the impacts on local communities, the lack of improvements in education and health negatively impacted the well-being of the local community. Specifically, this well-being is decreased with the demanding need for education incited by tourism (Su et al., 2023).

This research employs a mixed-methods approach including literature review on sustainable tourism and GIAHS to establish a theoretical framework and current practices in sustainable tourism and heritage conservation. This research will focus on the period from the beginning of the GIAHS program to the present times and it will analyze the

evolution since the beginning. It also follows the work in paper method based on case studies of specific GIAHS which will involve field visits and analysis of tourism management practices, starting with the Historical Irrigation System at the Horta of Valencia, Spain. Surveys and interviews to tourists, local residents and tourism operators within GIAHS sites will also be included in order to gather quantitative and qualitative data on their perceptions of tourism impacts and sustainability practices.

This study analyzes the tourism sustainability of specific GIAHS sites and examines the current sustainable tourism development level. Accordingly, an agricultural heritage sustainable tourism development framework was established in order to determine the route to sustainability for agricultural heritage tourism. Therefore, the research question guiding this study is: *How can sustainable tourism management strategies can be implemented in GIAHS sites to ensure a balance between economic growth, environmental conservation, and community well-being*? It explores the effectiveness of sustainable tourism practices in GIAHS sites. Specifically, it seeks to understand how these practices contribute to the conservation of agricultural heritage and the socioeconomic development of local communities. It also aims to identify best practices and potential challenges in integrating tourism into these heritage sites. Despite the significant increase in the number of GIAHS, many countries are now confronting the challenging task of dynamic conservation and adaptive management of GIAHS (Jiao et al., 2022). Therefore, one of the preliminary results would be to define sustainable policies in the field of tourism. Additionally, to elaborate guides offering reflection to GIAHS and established policies. Lastly, during the development of this study, other research questions have arisen such as: 1. Do GIAHS need tourism for their continuity, and can this tourism be sustainable? 2. Which are the current impacts of tourism on GIAHS? 3. How can the implementation of sustainable tourism practices in GIAHS contribute to the conservation of agricultural heritage systems, enhancement of local livelihoods and dynamic conservation?

Keywords: Sustainable tourism; Agricultural heritage tourism; Globally Important Agricultural Heritage Systems; Environmental conservation.

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PRIORITIZING THE DATA ECONOMY: AN AHP APPROACH TO BUSINESS DIGITAL TRANSFORMATION IN SPAIN

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Abstract

Introduction
The increasing reliance on data in both daily life and business environments highlights the growing relevance of the **data economy** in driving competitiveness, efficiency, and innovation across enterprises and regions (Ardito et al., 2022). Data has become a critical asset for economic growth, fostering innovation, job creation, and social progress (Ebert & Duarte, 2018; Marjanovic, 2022; Niebel et al., 2018; Zillner et al., 2021). Advanced technologies like **Artificial Intelligence (AI), Big Data, and the Internet of Things (IoT)** have transformed decision-making processes, altering how businesses operate by significantly reducing the costs associated with data collection, analysis, and distribution (Goldfarb & Tucker, 2019).

This abstract outline the findings of a research project aimed at identifying the critical factors influencing the adoption of data-driven technologies in Spanish companies through the **Analytic Hierarchy Process (AHP)**. The study focuses on the main drivers and barriers to digital transformation across various sectors, company sizes, and regions, providing insights for policymakers and business leaders on enhancing the adoption of these technologies.

Theoretical Framework
The **data economy** acknowledges the intrinsic value of data and its role in fostering economic growth. By leveraging data through collection, analysis, and exploitation, businesses can extract valuable insights that drive decision-making and create competitive advantages (Erevelles et al., 2016; Plastino & Purdy, 2018). This shift has led to the rise of **data-centric business models** that rely on the generation and utilization of large data sets to optimize productivity and efficiency (De Mauro et al., 2018).
Europe, despite lagging behind in some areas of technological disruption, has an opportunity to lead in the data economy by creating a unified data market that ensures global competitiveness and **data sovereignty** (Zillner et al., 2021). The European Commission's **Data Strategy (2020)** aims to increase the value of the data economy to €829 billion by 2025, reflecting a 530% growth in global data volume. At the national level, Spain's **Digital Strategy 2026** sets ambitious targets for **AI** and **Big Data** adoption, including the appointment of a **Chief Data Officer** to oversee data governance and usage

(Coyle & Li, 2021).

The adoption of **AI and Big Data** is central to the digital transformation of Spanish businesses. The European Union aims for 75% of enterprises to utilize cloud computing, big data (COM, 2023), and AI by 2030, with Spain targeting a 25% adoption rate by 2025(Agenda España Digital 2025, 2020). However, despite an annual growth rate of 12,8% in the **Information and Communication Technologies (ICT)** sector (INE, 2022), the implementation of AI remains relatively low, with just 9.55% of Spanish companies integrating AI by 2023 (INE, 2023).
Significant variations in AI adoption are evident across sectors, with **Information and Communications** exhibiting the highest implementation rate (32.43%), while sectors like **construction** remain below 5% (Calvino et al., 2018; Van Ark et al., 2021). These disparities highlight the uneven progression of digital transformation across industries, company sizes, and regions.

Methodology: The Analytic Hierarchy Process (AHP)
The **AHP**, developed by Thomas Saaty (1980), is a widely used decision-making tool that helps break down complex problems into hierarchies of objectives, criteria, and alternatives. This method enables systematic pairwise comparisons, assigning relative importance to each factor to determine priorities (Zahedi, 1986).

In this study, AHP was used to evaluate the factors influencing the adoption of data-driven technologies.
The hierarchy was structured into four blocks:

1. **Infrastructure and Technological Resources**: Includes data infrastructure, data quality, availability, and tools for data analysis.
2. **Cultural and Human Factors**: Emphasizes the importance of data-driven decision-making culture, skilled human resources, leadership commitment, and data governance.
3. **Security and Ethics**: Focuses on data security, compliance with legal frameworks, and ethical considerations in data usage.
4. **Collaboration**: Explores inter-organizational cooperation, access to open data sources, and data-sharing ecosystems.

The survey, conducted among 22 industry experts between December 2023 and July 2024. Due to the complexity and novelty of the topic, it was decided to survey a large number of experts (22) in order to ensure a meaningful numer of responses after the consistency analysis. Saaty's 1-9 scale for pairwise comparisons was used, generating a consistency ratio to ensure logical coherence. Only responses with a consistency ratio below 0.1 were included in the final analysis (Saaty, 1987).

Key Findings
The AHP analysis yielded insights into the factors considered most important for driving digital transformation in Spanish enterprises.

The Cultural and Human Factors were ranked as the most important category to enhance data economy in companies.

Leadership commitment, leadership that actively promotes digital transformation and allocates resources toward data infrastructure was identified as the top priority for driving

adoption. Previous literature underscores the importance of leadership in fostering an environment conducive to innovation (Bharadwaj et al., 2013).

The availability of **skilled human resources** (talent proficient in data science, analytics, and programming) was ranked second. This finding aligns with previous studies highlighting the skills gap as a key barrier to digital transformation (Plastino & Purdy, 2018).

Experts identified **data-driven decision-making culture** as crucial for successful adoption, emphasizing the need for a cultural shift toward reliance on data over intuition in decision-making. As noted by Drucker (2014), corporate culture plays a pivotal role in the success of digital initiatives.

While cultural and human factors were prioritized as a category, **technological infrastructure**—where the existence of sufficient data in terms of quality and quantity and the availability of technological resources in terms of both infrastructure and software is assessed. In fact, high-quality, real-time data that is accurate and secure is essential for effective implementation of data-driven technologies (Goldfarb & Tucker, 2019).

In third place, experts highlight the importance of **Security and Ethics,** the need to ensure privacy and non-vulnerability of data, its ethical use and regulatory compliance**.**

Collaboration between organizations and access to open data sources were considered lower priorities, although experts acknowledged the potential for data-sharing ecosystems to drive innovation and cross-sectoral synergies.

Conclusion

The findings of this study reveal that **corporate culture** and **human capital** are the most critical factors influencing the adoption of data-driven technologies in Spanish enterprises, followed closely by **technological infrastructure**. These insights provide a roadmap for companies seeking to navigate the challenges of digital transformation, emphasizing the need to foster a data-centric culture, invest in talent development, and ensure robust data infrastructure.

The **AHP methodology** proved to be an effective tool for systematically evaluating the relative importance of various factors, offering valuable guidance for decision-makers. Future research could expand this analysis to include additional sectors and explore the role of government policies in accelerating technology adoption.

Keywords: Analytic Hierarchy Process, data economy, digital transformation, artificial intelligence

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SOCIAL CAPITAL AND FAMILY FARMING: STRATEGIES FOR POVERTY ALLEVIATION IN ARGENTINA

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Abstract

Poverty in Argentina has reached alarming levels, with an incidence of 41.7% during the second half of 2023, affecting over 11 million people (INDEC, 2023). In this context, family farming (FF) stands as a fundamental pillar in the fight against poverty, highlighting its impact both nationally and globally (Lowder et al., 2014). However, families producing fruits and vegetables face significant economic challenges, as well as obstacles in marketing and price-setting. To mitigate poverty in rural areas, it is essential to improve access to resources, technology, and short marketing circuits (SMC), which would allow for the establishment of fair and sustainable prices (Dragusanu et al., 2014). In this regard, social capital emerges as a key factor influencing the endogenous development of regions and facilitating cooperation among actors, thereby enhancing innovation and adaptability within family farming (Bakaikoa et al., 2004; Steenwerth et al., 2014).

Social capital, understood as networks of trust and collaboration among social actors, is essential for the adoption of innovations by farmers. This support network enables producers to more effectively evaluate the costs and benefits of new technologies (Bakaikoa et al., 2004; Piñeiro et al., 2021; Steenwerth et al., 2014). Inter-organisational cooperation fosters the creation of networks that link multiple actors (Cook & Plunkett, 2006), strengthening social capital and facilitating the collective resolution of challenges faced by family farming. In this framework, the active participation of stakeholders in conceptualising the problems that affect them facilitates social innovation and governance in collaborative environments (Mulgan, 2006; Spear, 2011).

The aim of this research is to map the network of actors related to FF in the region, with a specific focus on food-producing families that supply local markets through agroecological, transitional, and conventional systems. Marketing occurs through food boxes and fairs organised by the producers themselves. This study focuses on the southwest of the province of Buenos Aires (Argentina), where 64% of agricultural holdings are family-run, according to the 2018 National Agricultural Census. The primary methodology used was actor mapping, which allows for the visualisation and analysis of the complexity of social and economic relationships in family farming (Gutiérrez, 2007).

To identify the different actors in the territory, interviews were conducted with key representatives from institutions, social movements, and producers who are socially recognized by the community. Through this methodology, connections between small producers and the institutions that support them were identified, along with various direct marketing experiences in the localities of Bahía Blanca, Médanos, and Hilario Ascasubi. The analysis of the actor maps in these localities reveals a complex network of interactions that strengthens FF (Figure 1). Marketing points (orange circle) stand out as key spaces for the direct sale of agroecological products. In Bahía Blanca, the "Rincón de Productores" acts as a public market where products from various groups are sold, and food boxes are organised. In Hilario Ascasubi, the "Feria de Hilario Ascasubi" enables local producers to offer their products, while in Médanos, marketing points include local fairs and community spaces such as the parish hall. These markets not only facilitate the connection between producers and consumers but also promote local consumption and establish short marketing circuits.

Producers' cooperatives (red circle) are fundamental for the organisation and support among farmers. The Sauce Chico Horticultural Cooperative in Bahía Blanca, which groups small producers, stands out for its ability to provide a significant volume of production. In Hilario Ascasubi, the "Nuevo Amanecer" cooperative contributes to the marketing and development of its associated producers. The agricultural cooperative of Mayor Buratovich also plays an important role in supporting women's producer groups in the region.

State-dependent institutions (yellow circle), such as INTA Hilario Ascasubi and the Bahía Blanca Extension Agency, play a crucial role in advising and supporting producers. These institutions facilitate access to resources, technologies, and training, contributing to the strengthening of social capital in the region. Moreover, they support the creation of networks among producers and the development of sustainable practices.

Cambio Rural groups (violet circle) act as intermediary actors that promote the organisation of producers and their connection with institutions. In Bahía Blanca, groups

such as "Artisanal Fishers" and "Runtu Thani" contribute to innovation and the development of sustainable practices. In Hilario Ascasubi, women's producer groups are also organised into rural change initiatives, promoting collaboration and the exchange of knowledge.

Social movements or organisations (lilac circle) are important in articulating producers' demands and facilitating their market insertion. In Bahía Blanca, cooperation with organisations such as the Union of Land Workers (UTT) and the National Peasant Front (FNC) helps to highlight the needs of producers and strengthen their bargaining capacity. Voluntary associations (blue circle) emerge as relevant actors, allowing for the creation of ties of cooperation and solidarity among producers. These organisations reinforce the sense of community and collaboration, which are essential for the sustainable development of family farming in the three localities.

Finally, producer families (green circle) constitute the core of this network, actively participating in the production and marketing of vegetables, fruits, and other products. Their capacity to innovate and adapt to market demands is key to the resilience and sustainability of family farming in Hilario Ascasubi, Bahía Blanca, and Médanos.

Regarding the role of women, in Bahía Blanca and Hilario Ascasubi, some actively participate in production and marketing decisions, while others collaborate in household tasks or the marketing of products. In Médanos, groups of women who lead marketing activities are particularly notable, becoming involved in production and the management of food boxes. Through these experiences, it becomes evident that women not only contribute to the family economy but also act as agents of change in their communities, driving the adoption of agroecological practices and promoting local consumption. Their integration into these processes further strengthens social capital.

Actor mapping allows for the visualisation of the dynamics of the CCC and the interaction of the involved actors, which is fundamental for the sustainability and strengthening of family farming in the southwest of Buenos Aires. Strengthening social and productive networks, alongside the active inclusion of women in these processes, emerges as a key element for improving the profitability and resilience of small producers in the region.

In this regard, the building of trust and the strength of the connections developed over more than ten years of collective work by small-scale producers have fostered a lasting network of relationships, some more formal than others, based on mutual recognition among actors. This sense of belonging to a group, where all members are bound by enduring and beneficial ties, enriches their social capital, which is considered crucial for promoting innovation and sustainable development in rural communities.

Based on the analysis of the actor map, we can conclude that while state participation is essential in these types of strategies, and public programs can encourage similar initiatives, the local and specific context is crucial for their creation and development.

Keywords: Poverty; Family Farming; Social Capital; Agroecological Systems; Market Integration

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Agradecimientos: Agradecemos la colaboración en esta investigación de las estudiantes del Departamento de Agronomía de la UNS: Hollman Agustina, Scandroglio Rocío y Cuchinelli Belén.
El presente trabajo se desarrolló en el marco del proyecto semilla AD23LL02 del programa ADSIDEO COOPERACIÓN 2023 “Circuitos Cortos de Comercialización y Precios Justos en la Agricultura Familiar: El rol de la mujer rural en la región del Sudoeste de la provincia de Buenos Aires (Argentina)”.

MEJORA DE LA ADAPTABILIDAD EN LA ADOPCIÓN DE LAS TIC EN MIPYMES INDUSTRIALES NICARAGÜENSES: UN ENFOQUE TAM Y UTAUT

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Abstract

The use of Information and Communication Technologies (ICT) is crucial in Micro, Small and Medium Enterprises (MSMEs), the lack of this use can lead to significant delays in operational efficiency, cost reduction and increased competitiveness of MSMEs (Inayatulloh *et al*., 2023), in addition, MSMEs by not using technology endanger their own existence in today's highly competitive market (Al-Azzam *et al*., 2023). Therefore, they suggest that future research should address the limitations of the use of ICT in MSMEs (Vargas & Fontoura, 2024), since MSMEs play a crucial role in the development of employment and contribution to the economic progress of a country (Inayatulloh *et al*., 2023), mainly in a developing country such as Nicaragua.

In this context, there are uncertainties regarding the problems and solutions in the adoption of the use of ICTs in MSMEs according to the specific characteristics of the company, such as size or sector, as well as the interrelations between these problems remain unexplored (Vargas & Fontoura, 2024). Especially in MSMEs in the Wood-Furniture, Metal-Mechanics, Bakery, Textile-Clothing, and Leather-Footwear sectors.

Therefore, this study aims to examine the factors that influence the use of ICTs by Nicaraguan industrial MSMEs in the aforementioned sectors, applying the conceptual frameworks of the Technology Acceptance Model (TAM) (Davis, 1989) and the Unified Theory and Technology Acceptance (UTAUT) (Venkatesh *et al*., 2012).

These technology acceptance models have been used to measure the behavioral intention to use educational technologies (Abdullah *et al*., 2023), digital banking services (Aria & Sacco, 2023), and in the adoption of 5G (Dadhich *et al*., 2023), among others.

Consequently, the application and reinterpretation of UTAUT and TAM will help measure the factors that affect the use of ICTs in MSMEs in the sectors studied.

The data will be collected through an online survey from a universe of 474 industrial MSMEs, whose instrument variables are framed in a conceptual model of the TAM and UTAUT constructs. These constructs will be validated using Partial Least Squares Structural Equation Modeling (PLS-SEM), which is a technique used to specify and estimate a model of linear relationships between variables, whether these are observed variables or latent variables (Rigo & Donolo, 2019).

This research comes from a thesis that is in development and from a methodological point of view, this study is threefold. First, a literature review will be carried out that includes a bibliometric analysis of articles that use TAM and UTAUT from the Scopus and Web of Science databases, providing an understanding of the application development of TAM and UTAUT.

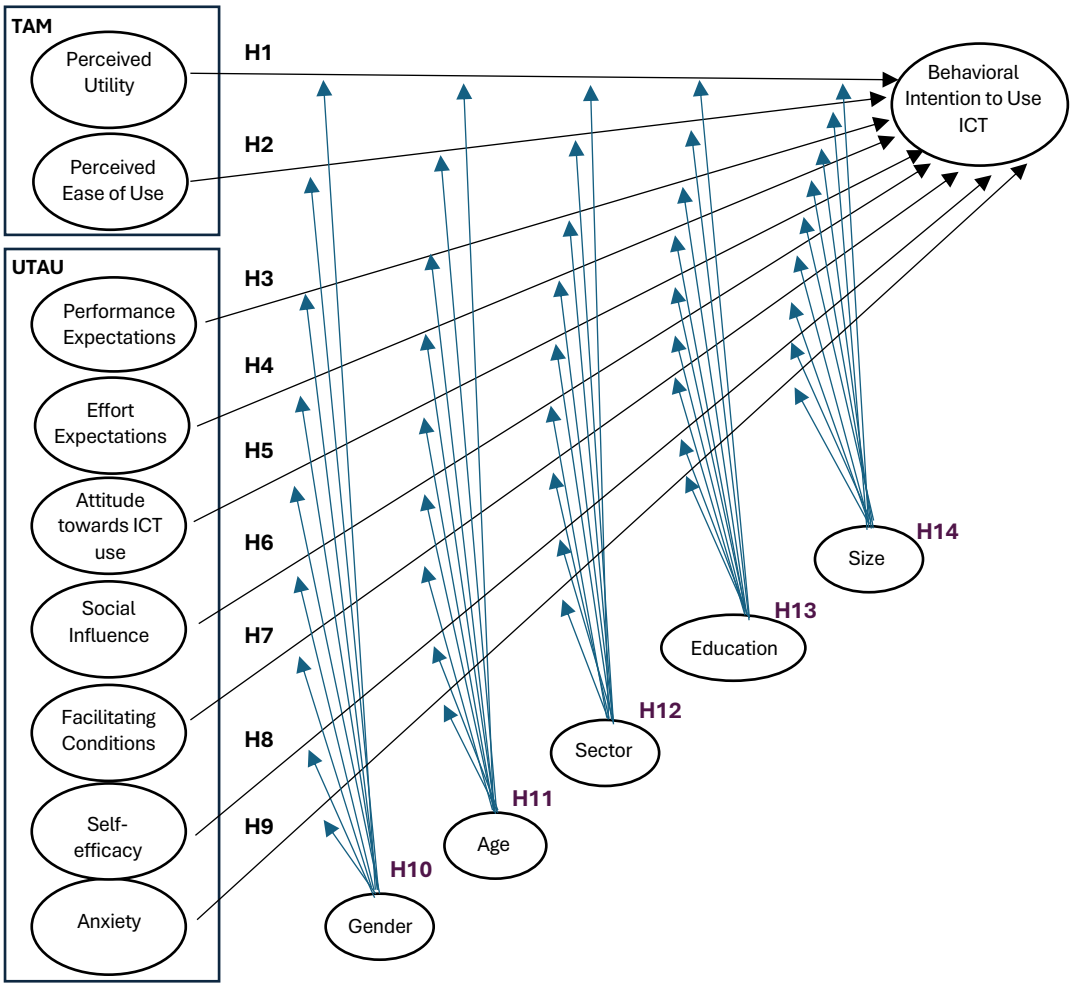
Secondly, a quantitative study will be conducted applying TAM and UTAUT in Nicaraguan SMEs from the aforementioned sectors, thus corroborating 14 proposed hypotheses, the first nine of which concern the perceived usefulness of ICTs (UP), perceived ease of use of ICTs (FUP), performance expectancy (ED), effort expectancy (EE), attitude towards ICT use (AU), social influence (IS), facilitating conditions (CF), self-efficacy (A) and anxiety (AA), regarding the significance or influence with the behavioral intention to use ICTs (IC). The last five hypotheses of the study are related to demographic factors (sex, age, sector, education and size) which act as significant moderators in the relationship between the main factors of TAM and UTAUT.

Third and lastly, a qualitative study with an open question on the perception of the factors that affect the use of ICTs in SMEs. This research concludes with the comparisons of the TAM and UTAUT constructs and the categories resulting from the qualitative analysis that determine the attitude of MSME owners and managers towards the use of ICT.

The results will reveal a moderate predictive capacity of both TAM and UTAUT to explain the behavioral intention of using ICT in Nicaraguan MSMEs in the Wood-Furniture, Bakery, Textile-Apparel, and Leather-Footwear sectors. By identifying the key facilitators of the suggested model, professionals and government decision makers will be able to better evaluate these aspects, in particular to ensure the Use of ICT in MSMEs and the economic development of the country.

The findings can help researchers and practitioners improve the acceptability of ICT use in MSMEs, as well as facilitate actions and suggest strategies to the Ministry of Development, Industry and Commerce (MIFIC) of Nicaragua, related to the use of ICT in MSMEs in these sectors to achieve their successful implementation.

Figure 1
Research Model



Keywords: information and communication technology; structural equation model; micro, small and medium-sized enterprises.

Resumen

El uso de Tecnologías de Información y Comunicación (TIC) es crucial en las Micro, Pequeñas y Medianas Empresas (MiPymes), la carencia de este uso puede llevar a retrasos significativos en la eficiencia operativa, la reducción de costos y el aumento de la competitividad de las MiPymes (Inayatulloh *et al*., 2023), además las MiPymes al no utilizar tecnología ponen en peligro su propia existencia en el mercado actual que es altamente competitivo (Al-Azzam *et al.*, 2023). Por lo tanto, sugieren que en investigaciones futuras se aborde las limitaciones del uso de la TIC en las MiPymes (Vargas & Fontoura, 2024), puesto que las MiPymes desempeñan un papel crucial en el desarrollo de empleo y contribución del progreso económico de un país (Inayatulloh *et al*., 2023), principalmente en un país en vías de desarrollo como Nicaragua.

En este contexto, existe incertidumbres con respecto a los problemas y soluciones en la adopción del uso de las TIC en MiPymes según las características específicas de la empresa, como el tamaño o el sector, así como las interrelaciones entre estos problemas siguen sin explorarse (Vargas & Fontoura, 2024). Sobre todo, en MiPymes de los sectores de Madera-Mueble, Metal-Mecánica, Panificación, Textil-Vestuario, y Cuero-Calzado.

Por lo tanto, este estudio tiene como objetivo examinar los factores que influyen en el uso de las TIC de las MiPymes industriales nicaragüenses de los sectores antes mencionados, aplicando los marcos conceptuales del Modelo de Aceptación de Tecnología (TAM) (Davis, 1989) y la Teoría Unificada y Tecnología de Aceptación (UTAUT) (Venkatesh *et al.*, 2012).

Estos modelos de aceptación tecnológica se han utilizado para medir la intención conductual de usar tecnologías educativas (Abdullah *et al.*, 2023), servicios de banca digital (Aria & Sacco, 2023) y en la adopción de 5 G (Dadhich *et al*., 2023), entre otros. En consecuencia, la aplicación y reinterpretación de UTAUT y TAM, ayudará a medir los factores que afectan el uso de las TIC en las MiPymes de los sectores estudiados.

Los datos se recopilarán a través de una encuesta en línea a un universo de 474 MiPymes industriales, cuyas variables del instrumento se enmarcan en un modelo conceptual de los constructos de TAM y UTAUT. Estos constructos se validarán utilizando Modelo de Ecuaciones Estructurales de Mínimos Cuadrados Parciales (PLS-SEM), el cual es una técnica usada para especificar y estimar un modelo de relaciones lineales entre variables, ya sean éstas variables observadas o variables latentes (Rigo & Donolo, 2019).

Esta investigación proviene de una tesis que está en desarrollo y desde el punto de vista metodológico, este estudio es triple. En primer lugar, se realizará una revisión de literatura que incluya un análisis bibliométrico de artículos que empleen TAM y UTAUT de las bases de datos de Scopus y Web of Science, proporcionando una comprensión del desarrollo aplicativo del TAM y UTAUT.

En segundo lugar, se realizará una investigación cuantitativa aplicando TAM y UTAUT en MiPymes de Nicaragua de los sectores antes mencionados, corroborando así 14 hipótesis propuestas, las primeras nueve a saber, conciernen a la utilidad percibida de las TIC (UP), facilidad de uso percibida de las TIC (FUP), expectativa de desempeño (ED), expectativa de esfuerzo (EE), actitud hacia el uso TIC (AU), influencia social (IS),

condiciones facilitadoras (CF), autoeficacia (A) y ansiedad (AA), respecto a la significancia o influencia con la intención conductual de usar las TIC (IC). Las últimas cinco hipótesis del estudio están relacionadas a los factores demográficos (sexo, edad, sector, educación y tamaño) los cuales actúa como moderadores significativos en la relación entre los principales factores de TAM y UTAUT.

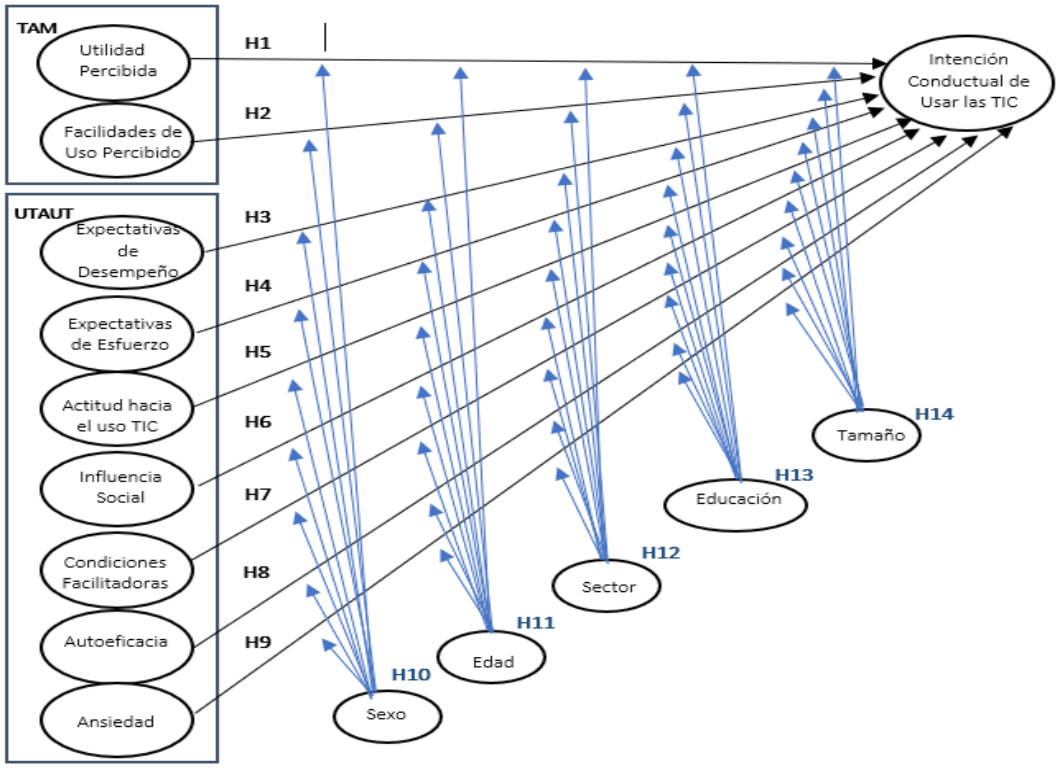
En tercer y último lugar, un estudio cualitativo con una pregunta abierta sobre la percepción de los factores que afectan el uso de las TIC en las MiPymes. Esta investigación concluye con los comparativos de los constructos de TAM y UTAUT y las categorías resultantes del análisis cualitativo que determinan la actitud de los dueños y gerentes de las MiPymes hacia el uso de las TIC.

Los resultados revelarán una capacidad predictiva moderada tanto del TAM como de la UTAUT para explicar la intención de comportamiento del uso de las TIC en las MiPymes nicaragüenses de los sectores de Madera-Mueble, Panificación, Textil-Vestuario, y Cuero-Calzado. Al identificar los facilitadores claves del modelo sugerido, los profesionales y tomadores de decisión gubernamental podrán evaluar mejor estos aspectos, en particular para garantizar el Uso de la TIC en las MiPymes y el desarrollo económico del país.

Los hallazgos pueden ayudar a los investigadores y profesionales a mejorar la aceptabilidad del Uso de las TIC en MiPymes, además de facilitar acciones y sugerir estrategia al Ministerio de Fomento, Industria y Comercio (MIFIC) de Nicaragua, relacionadas al uso de las TIC en las MiPymes de estos sectores para lograr su exitosa implementación.

Figura 1

Modelo de Investigación



Palabras clave: tecnología de información y comunicación; modelo de ecuaciones estructurales; micro, pequeñas y medianas empresas.

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ASSESING BARRIERS TO SUSTAINABLE DEVELOPMENT: A REGIONAL ANALYSIS OF NECESSARY CONDITIONS

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Abstract

Innovations and new technologies have hit society and its way of living, as well as business activities and decision-making. These innovations are introduced to overcome the limitations of old technologies based on a continuous learning process (Kucharska, 2021). Along these lines, Stiglitz et al. (2009) argue that products are transformed over time, disappearing entirely or appearing with new characteristics that reshape them. These changes are accentuated by innovations such as artificial intelligence or digital and information and communication technologies (ICTs), which stimulate information flow between different economic agents. In turn, this boosts productivity, economic growth (Dominko & Verbič, 2019), and competitiveness (Lenzi & Perucca, 2020). In different countries, innovation has become a fundamental pillar of the knowledge economy (Cano-Kollmann et al., 2018) because new technologies have driven rapid economic growth for decades (Howarth & Kennedy, 2016).

Most scientific research has focused on how new technologies and innovations affect wealth and economic growth, ignoring the possible relationship between innovation and well-being (Martin, 2013; Aldieri et al., 2021). Economic and social progress cannot only be measured by economic indicators (e.g., GDP) because other dimensions could affect global well-being (Stiglitz et al., 2009). For example, economic benefits and value created by innovation or even innovation itself could be distributed unequally among countries or agents. Innovation has accumulative effects as agents creating innovations are who obtain benefits (Mazzucato 2013; Aldieri et al., 2021). However, innovation can also have positive effects, such as improving quality of life (Dominko & Verbič, 2019). Omri (2020) claims that innovation contributes to the three sustainability dimensions simultaneously, with its effect on sustainable development dependent on country characteristics. This suggests that innovation and innovation systems could be applied as a

strategy to avoid global trends associated with unhealthy products and lifestyles, environmental degradation, armed conflicts, or youth employment, among others (Patton et al., 2016). In addition, innovation reduces ecological footprint and energy and resources inefficiency (Jahanger et al., 2022), hence improving well-being and environmental and social quality through eco-innovations or circular economy strategies (Chaparro-Banegas et al., 2023b). This highlights the importance of well-being and innovation for achieving sustainable development.

Regions and countries present differences in sustainable development (Rodríguez-Rosa et al., 2017) and innovation levels due to the unique characteristics and context of the territory. Considering these differences and characteristics is crucial to understanding each innovation system (Tabrizian, 2019). Chaparro-Banegas et al. (2023a) classified countries into four clusters according to their national innovation and sustainable development characteristics. Based on their findings and proposed research model, this paper tries to identify the necessary conditions (i.e., innovation facilitators) that explain different country sustainability levels using a Necessary Conditions Analysis (NCA). In this paper, the innovation facilitators classification proposed is readjusted and disaggregated according to the new specific innovation facilitators included. The innovation facilitators considered are (i) institutional, (ii) regulatory, and (iii) business environment (referred to as institutional facilitators), (iv) education, (v) tertiary education, and (vi) R&D (defined as knowledge facilitators), (vii) ICTs, (viii) general infrastructure, and (ix) ecological sustainability (known as infrastructure facilitators), and (x) GDP per capita (considered as economic facilitator). The absence of these necessary conditions could block a country's sustainable development progress.

The findings are expected to provide essential insights for designing and applying policies and strategies for sustainable development, eco-innovation, and circular economy, adapted to each national context. Therefore, continuous progress in sustainability would be guaranteed. This will be achieved as long as it considers what factors are necessary for each country and individual levels of sustainable development, innovation, and other national characteristics.

Palabras clave: innovation; sustainable development; innovation system; necessary conditions analysis; SDGs

Acknowledgment

El Vicerrectorado de Investigación de la Universitat Politècnica de València (PID2022-136723OA-C32) ha apoyado con trabajo.

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EXPLORING SUSTAINABLE BUSINESS PRACTICES IN THE DIGITAL AGE: ENTREPRENEURIAL CHALLENGES AND FUTURE DIRECTIONS

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Abstract

In an era of social and environmental challenges and technological advancements, this study analyzes the relationship between corporate sustainability and digital transformation. Through a review of current literature, synergies, challenges, and gaps are explored, aiming to guide future research and studies in this emerging field.

The concept of sustainability has evolved since its popularization in the 1960s, with works like *Silent Spring* (Carson, 1962) and *The Limits to Growth* (Meadows, 1972), which raised concerns about the limits of economic growth and environmental impacts. The Brundtland Report (1987) defined "sustainable development" as development that meets the needs of the present without compromising those of the future, integrating economic, social, and environmental dimensions (Silva Barbosa et al., 2014). In this context, corporate sustainability has emerged as an essential pillar, requiring companies to balance profitability, environmental impact, and social well-being (Dyllick & Hockerts, 2002). Elkington (1997) introduced the Triple Bottom Line (TBL) theory, emphasizing the importance of balancing people, planet, and profits. Furthermore, the launch of the United Nations' 17 Sustainable Development Goals (SDGs) in 2015 reinforces this need.

Digital transformation, according to Gong and Ribiere (2021), involves a fundamental technology-driven change to improve and innovate organizational processes and create value for stakeholders. Digital transformation and corporate sustainability share a stakeholder-centered approach, integrating economic, social, and environmental aspects (Dyllick & Hockerts, 2002; Proksch et al., 2021). However, their convergence presents ethical and practical challenges (Brenner, 2018). The Digital Transformation and Sustainability (DTS) model highlights the importance of data and collaboration to generate innovation and value (Pappas et al., 2018).

This study seeks to answer key questions about the link between corporate sustainability and digital transformation with the following research questions:

RQ1: What literature is relevant to define the intersection between corporate sustainability and digital transformation in business management?

RQ2: How are these publications distributed over time? In which journals?

RQ3: What research methods are used to address this link?

RQ4: What are the research topics covered in the literature addressing the intersection between corporate sustainability and digital transformation?

The methodology employed in this study consisted of a systematic literature review (SLR), based

on 129 articles published between 2015 and 2023 in the Web of Science Core Collection database. Selected articles were evaluated according to specific criteria, such as coverage of environmental, economic, and social dimensions, and relevance to business management. To deepen the analysis, VOSviewer was used to create a bibliographic map and identify key themes, along with AI (ChatGPT 4.0) to group the articles into four main topics. This methodology allowed for the identification of emerging trends and future research areas on the link between corporate sustainability and digital transformation.

The review revealed that most of the articles come from high-impact journals, such as Technological Forecasting and Social Change (15.50%) and Journal of Business Research (8.53%), with a concentration in the Q1 quartile according to the Scimago Journal Rank (SJR) and Journal Citation Reports (JCR).

Most of the publications focused on the Business and Economics area, accounting for 53.49% of the total, while Engineering ranked second, though with much lower representation (9.30%). This emphasis on Business and Economics is due to the practical importance of sustainability and digitalization in corporate strategies and the availability of resources in this field (Gaglio et al., 2022; Zhong et al., 2023). Since 2015, there has been a notable increase in publications on the subject, driven by the United Nations' 17 Sustainable Development Goals (SDGs). The most cited articles, such as the 2021 one titled *Digital Transformation: A Multidisciplinary Reflection and Research Agenda*, reflect a growing interest in the intersection.

The methodology of the articles showed a predominance of empirical analyses (74 articles), with a majority focus on quantitative (55) and qualitative (45) methods, along with 4 mixed-method studies and a significant number of conceptual studies (45 articles). The empirical studies used techniques such as Structural Equation Modeling (SEM) and multivariate analysis, while the qualitative studies included case studies and interviews.

The co-occurrence analysis of terms conducted with VOSviewer revealed key patterns in the literature on the intersection between corporate sustainability and digital transformation. This analysis identified and filtered the 54 most frequent terms, which were grouped into three main clusters. The first cluster included terms such as industry and technology, suggesting a fundamental relationship between these aspects and digital transformation. The second cluster focused on terms such as digital transformation, business, innovation, and sustainability, indicating how these technologies impact companies and their performance in terms of sustainability. The third cluster included terms related to performance and capability, highlighting the importance of organizational capabilities to manage digital transformation.

To validate these results, a confirmatory analysis was carried out using AI, ChatGPT 4.0. This tool not only verified the previously identified clusters but also helped organize the topics into more coherent clusters and added a new one focused on the digital economy and Big Data. Although AI confirmed the previous clusters with minor variations, it also contributed an additional perspective by including this new topic, providing a more comprehensive understanding of the link.

In conclusion, this study examined the intersection between corporate sustainability and digital transformation. First, the previous literature revealed the diversity of areas of knowledge where this intersection can be applied. Second, it was confirmed that this relationship has grown significantly since the introduction of the 17 SDGs, highlighting the crucial role of digital transformation in business sustainability. Third, quantitative analysis predominated in the methodologies of the articles reviewed. Lastly, the themes focused on digital transformation in industry, technological innovation in businesses, dynamic capabilities and digital transformation, and the relationship between the digital economy and Big Data.

However, the reliance on secondary data limits the depth of the analysis. Possible future research

could explore the evolution of sustainability initiatives in response to emerging technologies, compare practices across industries and regions, and analyze how technologies such as AI and IoT can enhance sustainability.

Keywords: Corporate Sustainability; SDGs; Digital Transformation; Digitalization

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A BIBLIOMETRIC ANALYSIS OF SOCIAL ENTREPRENEURSHIP AND DIGITALIZATION

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Abstract

Social entrepreneurship has become increasingly important in recent years due to several key global and societal trends. The rise in awareness of social, environmental, and economic challenges has fueled the need for innovative solutions that balance profit with purpose (Mair & Martí, 2006; Partzsch & Ziegler, 2011).
Social entrepreneurs are recognized for driving social change and reaching sustainable development (Bansal et al., 2019). They tackle pressing issues like poverty, inequality, environmental degradation, healthcare, education, and access to clean water. With traditional government or corporate solutions sometimes insufficient (Canestrino et al., 2024; Ibáñez et al., 2022), social entrepreneurs bring fresh perspectives to solve these problems in a sustainable way. They are considered change agents who use entrepreneurial approaches to deliver solutions to social and environmental challenges (Partzsch & Ziegler, 2011).

Digitalization is also a concept that is not only in vogue these days, but also has become essential in today's economic world as it is driving transformation across industries. As indicated by Reis et al., (2020) it is "the most significant technological trend that is changing both, society and business" (p. 443). Digitalization refers "both to a transformation from "analogue" to "digital" (e.g. a shift from cash to electronic payments) and to the facilitation of new forms of value creation (e.g. accessibility, availability, and transparency)" (Hagberg et al., 2016, p. 696). Among its numerous benefits it includes increasing operational efficiency (Rosin et al., 2020), enabling new forms of cooperation between firms (Rachinger et al., 2019), or offering broader market opportunities and business ideas (Fahmi & Savira, 2023). Even some authors see it as an imperative for enterprises survival (Canestrino et al., 2024). As a reflect of the significance of digitalization to a great number of industries, this topic has gained attention to scholars (Brennen & Kreiss, 2016). The number of published articles per year in Web of Science (WoS) show that research about digitalization has grown into a huge body of literature, being more than 4500, 5500 and 6000 in 2021, 2022, and 2022 respectively.

Analysing the connection between social entrepreneurship and digitalization is highly relevant for both academic inquiry and practical application. It offers an opportunity to explore how digital technologies can enhance the capacity of social enterprises to address global challenges, scale their impact, and foster sustainable innovation. It is also relevant for policymakers to design frameworks to support digital transformation in the context of social innovation and inclusive development. Therefore, research on both topics has the potential to generate critical insights that inform theory, practice, and policy, while also contributing to more equitable and inclusive development outcomes globally.

The literature on the intersection of these two topics has expanded since 2020. Numbers show that 74% of research was published in the last 5 years. This indicates the growing interest among scholars.

Most previous bibliometric research has either focused on one domain or the other (Ali et al., 2023; Aziza et al., 2023; Barahona, 2023; Coronel-Pangol et al., 2023; Dettori & Floris, 2021; Doroiman, 2022; Holand et al., 2019; Minga López et al., 2022), however the intersection of digitalization and social enterprises have been underexplored. We have not identified any previous bibliometric analyses that summarize the findings of this growing body of recent articles. Bibliometric studies are essential for synthesizing and understanding the structure of a large number of publications. Therefore, conducting a bibliometric analysis is needed to examine the previous articles.
Analysing this connection can deepen our understanding of how digitalization enables social entrepreneurs to innovate, scale, and address social challenges more effectively.

The aim of this study is to identify the most influential authors and countries on this topic. In addition, to structure the literature by indicating the lines of research that have been previously studied.
The paper contributes to the literature of social entrepreneurship as well as digitalization. This research is relevant for scholars because this article structures the bases of the field and pave the way for new research.

Keywords: social entrepreneurship; digitalization; bibliometric

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ENTREPRENEURSHIP AND KNOWLEDGE TRANSFER: A DESCRIPTIVE STUDY OF SPINOFFS IN SPANISH POLYTECHNIC UNIVERSITIES

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Abstract

By the late 1990s, the concept of the "entrepreneurial university" began to gain popularity, with the aim of describing the relationship between university institutions and society, particularly in terms of knowledge transfer to the economy, assuming a more direct role in the economic exploitation of research results (Etzkowitz & Leydesdorff, 1995). This knowledge transfer can be carried out through various forms and models, including research collaborations with organizations, intellectual property rights, and university-based entrepreneurship through spin-offs (Geuna & Muscio, 2009).

University spin-offs (USOs) are defined as companies founded by individuals who are part of a university institution and commercially exploit the knowledge or technology developed within the associated university (Steffensen et al., 2000; Pirnay et al., 2003). These USOs have gained importance in the international context, and specifically in the case of Spain, where their significance and growth led to the creation of a specific legal framework under Law 14/2011 on Science, Technology, and Innovation (LCTI), in which they are referred to as knowledge-based entities.

USOs have demonstrated a crucial role in knowledge transfer and in enhancing the research excellence of academics involved in them (Li et al., 2022). However, research is not overly optimistic about their performance and survival as businesses, being its influence in generation of wealth and employment limited (Valente & Lurenço, 2019; Román-Martinez et al., 2020). Various factors, both internal, such as the inclusion of non-academic personnel at different stages of spin-off development and the power relations between academic and non-academic staff; and external, such as the sector in which the USO operates or the level of specialization of the associated universities, have been shown to influence their chances of survival (Ben-Hafaïedh et al., 2022; Cantner et al., 2024; Hunady et al., 2019).

Taking into account these factors, this study aims to analyze the current state of university spin-offs (USOs) associated with polytechnic universities in Spain, identifying the differences they exhibit compared to non-polytechnic universities, as well as the sectors where the highest number of spin-offs are generated within these institutions. For this study, a review was conducted of various regional reports prepared by CyD Foundation (Fundación de Conocimiento y Desarrollo), which breaks down the USOs created by each university in relation to the number of teaching and research staff they have. Subsequently, to obtain more specific information about the universities that were identified as having USOs, the official websites of the universities or their Research Results Transfer Offices (OTRIs) were consulted to determine the number of spin-offs from each institution. Afterward, a sectoral classification of USOs from polytechnic universities was carried out, focusing on the Polytechnic University of Catalonia (UPC), the Polytechnic University of Cartagena (UPCT), the Polytechnic University of Madrid (UPM), and the Polytechnic University of Valencia (UPV). The classification system used was based on the one employed by the Polytechnic University of Madrid, as it is the Spanish university with the highest number of USOs. This approach aims to identify which sectors most favor the creation of spin-offs and to determine whether differences exist among the institutions.

The analysis uses the ratio of university spin-offs (USOs) per thousand contracted teaching and research staff (PDI) to assess the propensity for USO creation across institutions. This metric reveals that all four polytechnic universities exceed the average USO generation rate observed in Spanish public universities, which stands at 0.91 USOs per thousand PDI. Specifically, the Universidad Politécnica de Cataluña (UPC) reports a ratio of 1.07, Universidad Politécnica de Cartagena (UPCT), 6.2, Universidad Politécnica de Madrid (UPM) 2.94, and Universidad Politécnica de Valencia (UPV) a ratio of 0.94. These figures underscore an increased capacity for knowledge transfer and entrepreneurial activity among polytechnic institutions relative to the national benchmark. Additionally, when analyzing the regional contexts, it was observed that although the UPV and UPC are not the universities with the best ratio in their respective autonomous communities, they are the institutions that have created the highest number of USOs in their territories, confirming that this type of university fosters the creation of USOs.

Furthermore, the sectoral distribution of USOs in these universities was analyzed using the categorization established by the UPM, which has created the largest number of USOs in Spain, with over two hundred. The UPM classifies its USOs into the following sectors: Agri-food and Biotechnology; Construction and Infrastructure; Energy and Environment; Materials and Nanotechnology; Medicine and Health; ICT, Internet, and Mobile; Transport, Security, and Space; and Consulting and Services. In Table 1, the percentage distribution of USOs by sector across the four polytechnic universities is observed (UPC, UPCT, UPM, UPV).

Table 1. Sectoral Distribution of USOs by Polytechnic University (%)

	UPC	UPCT	UPM	UPV
Agri-food and Biotechnlogy	4.3%	30%	5.1%	3.7%
Construction and Infrastructure	4.3%	-	2.3%	7.4%
Energy and Environment	17%	10%	11.6%	7.4%
Materials and Nanotechnology	2.1%	-	3.7%	11.1%
Medicine and Health	27.7%	20%	8.8%	22.2%
ICT, Internet, and Mobile	34%	20%	40.9%	29.6%
Transport, Security, and Space	4.3%	-	7.9%	3.7%
Consulting and Services	6.4%	20%	19.5%	14.8%

After analyzing and categorizing the USOs from the four polytechnic universities, it was found that the most significant sectors, generally, are ICT, Internet, and Mobile (accounting for 41% to 20% of the total), Medicine and Health (9% to 34%), and Consulting and Services (6% to 20%). This is consistent with previous research conducted in this field (Bagchi-Sen et al., 2020). Nevertheless, significant variation exists between universities; for example, the sector of Agri-food and Biotechnology represents 30% of USOs at UPCT, while Medicine and Health accounts for 27.7% at UPC and 22.2% at UPV. These differences reflect diverse research and development strengths within each institution, suggesting that each polytechnic university supports distinct areas of applied knowledge transfer. Further research is needed to understand how these sectoral focuses impact the long-term success and economic contributions of USOs across different fields. These variations underscore the importance of tailored support from policymakers, who could enhance the impact of university spin-offs by aligning funding, incentives, and resources with the unique strengths of each university. Such targeted policy measures could help maximize the economic and social contributions of spin-offs, fostering sustainable growth in sectors aligned with regional and national priorities.

Following the analysis of the USO context in Spain, it is important to highlight the difficulties encountered in the data collection process due to the lack of standardized information, as each university has different directories for listing their spin-offs, and in some cases, there is no section where this information can be obtained. Additionally, the constant updating of these directories, due to the creation and closure of spin-offs, makes the data highly subject to change over time. Further lines of research have been identified, including the analysis of the relationship between the success of degree programs related to specific sectors and the number of USOs, as well as the connection between the percentage of USOs by sector and the number of private StartUps in the regions analyzed.

Keywords: Academic entrepreneurship, Innovation, Knowledge transfer, Polytechnic universities, University spin-offs

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The role of ethical conduct in technology centres as intermediaries of innovation

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Introduction

This paper examines the ethical considerations that innovation intermediary agents adopt in the systems in which they operate, facilitating the advancement of new technological developments and establishing connections between the agents of these systems to promote economic growth and enhance a territory's competitive edge (Lundvall, 2007).

Firstly, the role of innovation intermediaries in the form of technology centres will be examined, with particular attention to their involvement in innovation systems and the establishment of collaborative networks to facilitate technology transfer to companies.

Secondly, the concept of open innovation will be addressed, considering its dual meaning: it is necessary to guarantee the generation of trust between the agents making up the innovation systems and to address the existing limitations to guarantee privacy in the technological developments of companies.

Thirdly, the ethical aspects in technology centres (TTCC) and their interrelation with open innovation in collaborative networks will be analysed.

Conceptual framework

National and regional innovation systems are indispensable for the economic, political, and social development of territories (Freeman, 1995).

The technology centre, in its role as an intermediary in the innovation process, contributes to the development of its associated companies and clients, while also providing other agents with the necessary impetus to drive forward R&D&I (Mas Verdú, 2021).

Regional innovation systems maintain a variety of collaborative networks with the objective of strengthening their R&D&I system and improving the competitiveness of their region (Cooke et al., 1997). In this context, the concept of open innovation is introduced (Chesbrough, 2003), which generates new technological developments that respond to global needs (Valkokari, Paasi and Luoma, 2009). This is where their conduct must be exemplary.
What, then, are the tools that technology centres use to ensure ethical conduct in their daily activities, and how can they ensure the beneficence of the activities carried out by these entities?

Methodology

A review of existing literature on ethics in research was undertaken, focusing on the actions carried out by research entities, including technology centres, from the perspective of their service offerings, their participation in collaborative networks and their involvement in open innovation networks.

From the point of view of open innovation and ethical behaviour in its development, an analysis has been made of how technology centres proceed and some of the tools they use to guarantee their impartiality, transparency and scientific rigour.

Results

Open innovation has highlighted the importance of ethics in research. Integrity, openness and transparency in the service of society are indispensable elements in the approach, presentation, execution and development of results in R&D&I projects (Schöpfel & Azeroual, 2023).

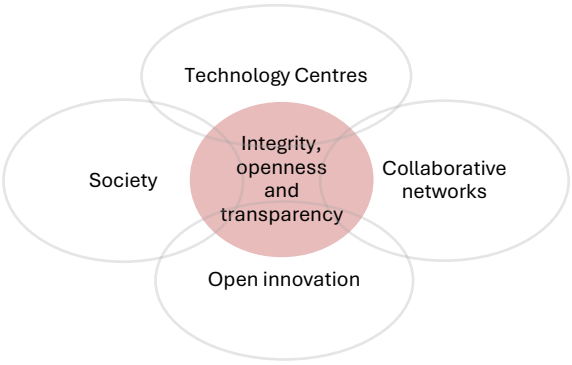

Figure 1. Ethics in innovation systems

In the context of technology centres, the following principles could be identified as providing a framework for their activities.

Ethics in research	TTCC Principles	TTCC activities
Justice Beneficence Non-maleficence Respect Responsibility Reliability Honesty	Complementarity	Commitment
		Scientific rigour
		Shared know-how
	Technological neutrality	Collaborative projects
		Shared and complementary technological solutions
	Transparency	Accountability to the Board of Directors
		Rigour in information management
		Confidential treatment with client companies
		Dissemination of results
	Independence	Collaboration with innovation ecosystem agents
		Response to the needs of productive sectors

		Not subject to political trends

Table 1. Ethical Principles – TTCC activities

The use of instruments that ensure good governance and ethical conduct can ensure sustainability and competitiveness. Furthermore, it can facilitate flexibility in decision-making in relation to other actors in these networks, thereby fostering a climate of dialogue and consensus.

Keywords: *innovation intermediaries, collaborative networks, technology centres and ethics.*

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